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THE
MARVELS BEYOND SCIENCE

(L'Occultisme Hier et Aujourd'hui; Le Merveilleux préscientifique)

*Being a Record of Progress Made in the Reduction of
Occult Phenomena to a Scientific Basis*

BY

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WITH A PREFACE BY

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AUTHORIZED ENGLISH TRANSLATION OF THE SECOND
REVISED AND ENLARGED FRENCH EDITION, BY

RENÉ JACQUES TUBEUF

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FUNK & WAGNALLS COMPANY

NEW YORK AND LONDON

1910

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Published September, 1910

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ALBION, N.Y.

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AUTHOR'S PREFACE TO THE FIRST EDITION

When asked to issue a third edition of my former work, "Spiritualism and Science," I thought better to postpone it and undertake instead the present book, "Occultism To-day and Yesterday." The title of the former has been rightly criticized—first, because it was identical with the title of a book that had been issued in 1883 by Mr. Delanne; second, because I did not use the word Spiritualism in its narrow, etymological sense.

To serve as a substitute for that title, I have hesitated for the present work between "The prescientifical marvelous" and "Occultism," but have believed that the latter expression sounds the better. It needs a thorough explanation, however, lest it be misunderstood. This is what I have tried to do in the first part of the book.

In "Spiritualism and Science," I chiefly examined those manifestations of occultism on which light has recently been thrown. They comprised the occultism of yesterday, and with this the second portion of the present book deals. The occultism of to-day, as discust in the third part of the work, is an amplification of a study which was printed originally in *La Revue des Deux Mondes*, in November, 1906. The same ideas and conclusions, but with more proofs, will be found here.

A clear idea of the scope of the entire work can be promptly gathered by reading the contents and conclusions.

J. GRASSET.

MONTPELLIER, FRANCE, *March 25, 1907.*

AUTHOR'S PREFACE TO THE SECOND EDITION

Since the first edition of this book appeared, I have not been able to change my doctrinal idea; it still remains what it was. I have had only to take notice of the latest publications on such occult matters as continue to hold public attention. I cite as notable "Les Forces Naturelles Inconnues" and "L'Inconnu et les Problèmes Psychiques" of Flammarion; "Le Miracle Moderne" of Jules Bois; "La Psychologie Inconnue" of Boirac, and have particularly had in mind the new experiments of Italian scientists with Eusapia Palladino and with Zuccarini. There will be found in the book many new things of real worth. While these do not alter my conclusions, I had to discuss them.

The notable feature of this second edition is the Introduction, which M. Emile Faguet has been kind enough to write for me. In this he has admirably described, and set bounds to, the respective domains of the marvelous and the scientific. I wish respectfully to mark here my deep gratitude to this world-famed Academician.

Desiring that my volume should not be too much increased in size by many necessary additions, I have considerably shortened a few chapters dealing with hypnotism, since they contain matter now universally familiar.

J. GRASSET.

MONTPELLIER, *March 25, 1908.*

TRANSLATOR'S PREFACE

The subject-matter of this book, dealing as it does with a theme now prominent in the public mind, I have done my utmost to present to English-speaking readers in accurate compliance with the original text of Professor Grasset. I have been well aware of the difficulties of the task. A few notes only, and these concerning French linguistics or bibliography, have been omitted, as they would have been superfluous in an English version. I have thought it well to reproduce the diagram so frequently referred to throughout this volume—the one showing Dr. Grasset's system in regard to psychical center O, and the lower psychical centers (the polygon), which is not in the French edition. It has seemed best, in the interest of English readers, to give to the book the title "The Marvels Beyond Science."

Let me add that the "Dictionary of Philosophy and Psychology," edited in 1902, by J. M. Baldwin, has proved very useful to me, especially in finding foreign equivalents for abstract terms. My best thanks are also most heartily offered to the publishers of the present work, who have spared no trouble in giving me much valuable advice.

RENÉ JACQUES TUBEUF.

PARIS, *January*, 1910.

INTRODUCTION

To speak as sailors do, Dr. Grasset has endeavored to "calculate the reckoning of the ship," and it appears that he has succeeded. Science consists of "reckoning." To be scientific is to know where one has arrived on the road of knowledge. Science stands between the explained things that are behind us, and those unexplained that are in front of us. It marks exactly the point where we stand. Behind us are scientific matters known and acquired, those that we can believe when once we have resolved to believe only reasonable things. Before us lies the pre-scientific realm which perhaps one day will become a province of the Kingdom of Science—thanks to the aims of busy and searching science. There now remains nothing more to be searched by science than the things which are not yet within the dominion of Science. These are what we must not yet believe when once we have resolved to believe only what is rational.

One should not say that, according to this view, the whole of metaphysics must be banished from intellectual considerations. There exists the disposition to believe and to make reasonable hypotheses after having allowed a certain degree of probability. But we must finally trust only to matters that are scientific and well-defined. It is not bad—in my opinion, it is even healthy—to make hypotheses beyond science, but it is lawful to tread the field of probability only when we bear in mind that it is only the field of probability. So to do is often to widen and to elevate the mind.

In other words, one must study metaphysics after a positivist spirit. We must not distrust paradoxical truths. He who believes in metaphysics as in a scientific reality, willingly despises real scientific truth; he does not want it. Having attained, as he thinks, the end of the road, he refuses to follow those who walk slowly, seeking and faltering. It may so happen that he will acquire a slow, narrow and lazy mind. The positivist who studies metaphysics does not believe in them, probably because, between things exploited and acquired, which are so few, and those fully explained, he sees a wide chasm over which he feels obliged to jump, and this is not a lawful act of thought. He never looks at metaphysics solely as at probability, but to probability applies the rational method of which he is fond—a mind of prudence, even in hypothesis, a mind of self-control, even in bold generalization, a mind of perseverance, even in dreaming; and by so doing he attains probabilities with which the mind is satisfied and, what I think is best, he makes his intelligence free, he opens doors and windows, he enlarges his horizon, looks at the sky, and after a little, is strengthened and, more at rest, a little happier and enters again his study saying, "I have taken a small dose of the Infinite." He is then ready to tread again the road of real science and make those two or three half steps which the strongest amongst us find ourselves able to make.

It is therefore of no use to hinder metaphysical research; but let us come to it as a scientist dealing with science. It is good to explain what has not been already explained but which is leaning upon what is known already. We must after every small conquest, mark scrupulously the boundary between the things already known, and those that are beyond our understanding. Such is the aim of Dr. Grasset with regard to occultism, or, if you

like other terms better, the marvelous, or the wonderful of yesterday which have become part of the scientific domain of to-day.

Ages ago, before philosophers and even after them (we may say so, without any exaggeration), all things were marvelous. I mean nothing whatever was explained, or coordinated by well-defined connections between phenomena. Everything was explained by reference to some mysterious agent producing a phenomena. At the basis of a fact, you were to find a responsible and willing author.

Such was the universal creed in former times. The sun revolved inasmuch as somebody drew it; the corn in the blade grew rusty because someone dwelt in it by whom it was withered. From infinitely great to extremely little things, everything went on the same. The motive for this method lay in the fact that man had only examined one thing—himself in his voluntary acts. He had felt himself to be a maker of phenomena, a creator. He had thought that when knocking on a dulcimer, he had made a sound, solely because he was willing to do so. And looking at the whole universe as he looked at himself behind anything that might happen he saw a willing being who produced it. As he believed himself to be a creator, he fancied the world to be crowded with creators, and anything not made by himself he thought made by creators more or less powerful than himself, but on the whole mightier.

Science was born the very day when man thought one fact might be produced by another fact, and this other fact by still another. As a consequence of this, man considered that Nature's phenomena were not whimsical, that they occurred again and again and were always identical when the circumstances were the same. Consequently they followed those circumstances. They were

not made by beings who were supposed to be capricious and who showed themselves by freaks.

The supposed likeness between Nature's manifestations and human deeds having vanished little by little, the marvelous disappeared also. Nature was no more thought to be free—the author of phenomena which she might not have herself produced. She was little by little believed to be linked to phenomena, all of which were necessary. The mysterious agent behind a waterfall, or hidden in a tree, the special maker of a spring, of lightning, or of a gale was eliminated, and man saw nothing but two marvelous creatures—himself, the author of acts for which he became sure he would have to answer, and behind all natural phenomena, behind everything, an Initial Cause that was probably a Being or at least something which there was no reason not to trust as a Being; that this Being had created, not one thing, but all things, and had brought forth, not a phenomenon, but all phenomena, the indefinite and eternal series. For a scientific man there remained only two miracles, that is to say, two powers depending each on the other — human freedom and God.

However there remained, with an attenuated stamp of the marvelous, facts reckoned to be genuine, and which knowledge of the ordinary connections between things did not explain; that is, extraordinary facts not tributary to laws dealing with the arts of doing and producing things. Sunrise and sunset were no longer deemed marvelous, but an eclipse was reckoned a wondrous deed so long as science had not sufficiently elucidated it. Since science was born, the patient conquest of the unexplained kingdoms which people had fancied were unattainable and unaccounted for, has been marvelous. With every success she makes, Science casts a fragment of the marvelous into the king-

dom of explained things. Little by little, she eats away the marvelous, changing it into the scientific.

In this work science has two steps to take—first, to inquire as to the fact deemed to be wondrous, and this means only that it is extraordinary; is it genuine, and is it controvertible, by scientific minds, or does it exist only in fancy? Second, the fact having been acknowledged to be genuine how can we explain it; that is to say, how can we make it tributary to a rational rule that will account for it, and in the same manner account for it at any time when it may happen, so that it may be understood by reference to the identity of the accounts given. To prove the first test—that is, prove the fact genuine—is to make it comparatively scientific. The fact we see exists; it is unquestionable; it is not fancied; it is therefore scientific, and you can trust it for it will be expounded sooner or later.

To prove something in the second proceeding is to make the fact absolutely scientific. Not only does the fact exist, but it is impossible that, with certain conditions and in certain given circumstances, it will not happen again. Not only can you see it clearly, but you can foresee it clearly also. It is entirely a scientific fact. A woman rises in the middle of the night, and when still quite asleep makes up a bonnet—so it seems—and then goes to bed again. When she wakes up, she is thoroughly astonished to find that her bonnet has been made up. A table turns, when surrounded by people who have their hands stretched out over it, and wish it to turn, but do not wish to make it turn.

These facts are wondrous. At first Science asks, are they genuine? Is there no fraud? No feigning, etc.? Science acknowledges the facts to be real; they are still astonishing, but they are no longer wondrous. They are

only facts that require an explanation. Science explains them by comparing with them analogous cases and by concluding, with all these facts connected, that there is a conscious will and an unconscious action. Hereafter, these facts remain wholly scientific, since they have been classified. They need no longer astonish anybody. Babinet said about 1860, "Nowadays we know the law of the evolution of comets. We know when a certain comet will appear again to our eyes. Since comets are no more abnormal, they are no longer interesting, or rather if they are still interesting, they are no longer dramatic. They are still scientifically interesting, but they have no longer any literary interest."

This work of setting limits between facts well known and facts explained, and between facts insufficiently known and not explained—in other words, between facts henceforth scientific and those that are not yet so, has been achieved by Dr. Grasset with that "quiet fervency" M. Anatole France spoke of the other day; that is to say, with indefatigable zeal, great coolness and infallible prudence about those cases of the psychical dominion which have been termed, for want of a better denomination, occultism.

In view of these facts, he has asked himself—which are the things that have been proved to be true: which are those that having been proved to be true, have been expounded, or rather, illustrated by a law? Finally, which are those that are perhaps sound, though questionable, and, at all events, have not been explained by law, and are not within the range of what we may depend upon?

He has shown us a disoccultated realm; that is to say, phenomena that are proved to be genuine and have been sufficiently explained, and then subjected to more formal explanations, such as hypnotic sleep suggestion, the un-

conscious will of the movers of tables and conjurer's wand, the unconscious memory of hypnotized people (commonly called "lucid somnambulists"), and with regard to mediums, their unconscious imagination which we were asked to suppose was God-sent.

He has shown us that phenomena still occult are likely to be in a short time, expounded as true, and then included in a principle, such as mental suggestion and direct intercourse of thought (without hypnotic sleep); articles removed without touch (when such articles are very near); and clear-sight (sight through opaque substances). He has also shown as still occult and very far from being demonstrated as genuine, telepathy, premonitions, articles brought from long distances, and materializations, such as spirits of the dead assuming a body.

In respect to the facts expounded as genuine and included in law, he has energetically asserted the demonstrations, and as to all those not demonstrated as true, he has never denied them in advance. Yesterday's occultism is becoming to-day's science. There has been nothing more startling than a storm, but to-day the air is more clear. He has not repress research. He has even made it easier. But he has shown how any research, touching facts capable of being observed, but not experimented with, is trying, and he has pointed out the rigorous and strict methods of prudence, carefulness and caution that one must use in this kind of investigation, the most difficult and delicate of all.

The dangerous things here are faith and hope. One takes the risk of being misled because one believes a little in advance, and one hopes that the case, about which one asks oneself if it is true, will prove to be true indeed.

Dangerous things also—but less to be feared, I cannot help saying so—are skepticism and obstinacy; that is to

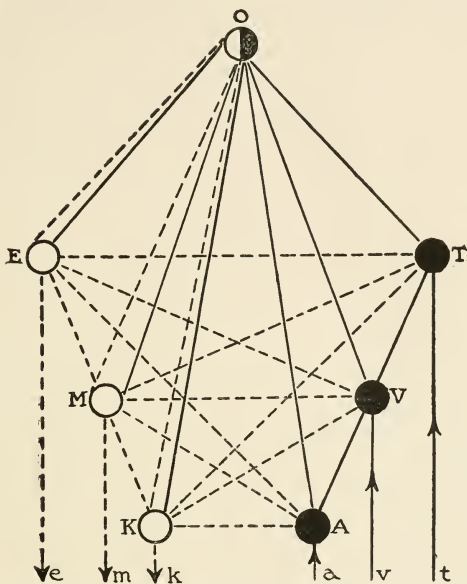
say, a fixed belief that nothing more will be discovered. One must also remove suggestions less acute than theory, hope and faith, and which are still strong—the suggestions of indolence. La Rochefoucauld has said that “One is mistaken when one believes that strong passions, such as ambition and love, are sufficiently powerful to overcome other passions; laziness, however languid it may be, succeeds very often as master and so usurps all the schemes and passions of life.”

One must therefore be skeptical, but with a scientific skepticism, that is only a fear of being mistaken, but still keeping the warmest ardor for research. Merimée said, “Remember to be distrustful.” One must always remember to be distrustful, but one must know how to be a believer, when all distrust has been exhausted. There are distrusts that will finally yield completely. Scientific distrust is one of those distrusts that will yield, but only when there is nothing left to support it, so that it dies from starvation; that is to say, if scientific distrust never capitulates, it knows how to die.

Dr. Grasset seems to me to be endowed with a scientist's cardinal virtues. I shall not say he is gifted with all the others because you do not want to know that.

EMILE FAGUET.

This diagram or "schema" will be found in Dr. Grasset's book on "L'hypnotisme et la Suggestion," p. 8. Octave Doin, publisher (2nd edition, Paris, 1906).



General Schema of the Upper psychical center O and of the lower psychical centers (upper automatical centers).

O represents the upper psychical center of conscious personality, or free-will, or the responsible Ego—the cerebral cortex of the prefrontal lobe.

A V T E M K represent the polygon of the lower psychical centers, or psychological automatism.

A is the Auditory center: the cortex of temporal convolutions.

V the Visual center: the cortex in the region of the fissura calcarina.

T the Tactile center (sensibleness at large): the cortex of the perirolandic region.

K the Kinæsthetic center (general movements): the cortex of the perirolandic region.

M the center of speech: the cortex of the root of the 3rd left frontal.

E the center of writing: the cortex of the root of the 2nd left frontal.

a A, v V, t T, are the centripetal organs of vision, audition and sensibleness at large.

E e, M m, K k, the centrifugal organs of writing, speech and movement.

E A, E V, E T, M E, M K, M V, M A, M T, K V, K A, K T, the intra-polygonal organs.

PART I

DEFINITIONS—HISTORICAL ACCOUNT—DIFFICULTIES IN MAKING THIS SURVEY

CHAPTER I

DEFINITIONS AND HISTORICAL ACCOUNT

CHAPTER II

DIFFICULTIES IN THE PRESENT STUDY OF
OCCULT PHENOMENA

Adeone me delirare censes, ut ista esse credam?
CICERO.

..... Ignari quid queat esse
Quid nequeat..... LUCRETIUS.

"One must be strongly convinced that science
to-day, tho true, is dreadfully deficient."
CHARLES RICHTER.

CHAPTER I

DEFINITIONS AND HISTORICAL ACCOUNT

- I. 1. A DEFINITION OF OCCULTISM AND OCCULT PHENOMENA.
- II. 2. HISTORICAL ACCOUNT.
 - 3. *The Period of Animal Magnetism.*
 - 4. *The Period of Spiritualism.*
 - 5. *The Present Period.*
 - 6. *Occultism the Promised Land of Science.*
- III. 7. WHAT OCCULTISM IS NOT.
 - 8. *The Traditional Sciences of the Magi, Theosophists and Spiritualists.*
 - 9. *The Supernatural and Miracles.*

I. A DEFINITION OF OCCULTISM AND OCCULT PHENOMENA

1. Occultism is not a survey of all things hidden from science; it is a survey of facts not yet belonging to science (I mean to positive science, after Auguste Comte's manner) but which may belong to it.

Occult facts are outside of science, or in the vestibule of science, endeavoring to conquer the right to be included in the text of the book of science, or to cross the threshold of the palace. There is no logical situation which hinders those facts from ceasing one day to be occult and becoming scientific. Charles Richet calls them metaphysical. As they are really psychical, I should rather term them *juxta-* or pre-scientific.¹

¹In an article, very kind in its nature, published in *Les Annales des Sciences Psychiques* (1906, p. 772) under this title: "Science's Promised Land," the author, criticizing these words, "prescientific" and "juxta-

To the word "metapsychical," Boirac¹ prefers the term "parapsychical," in which the prefix *para* indicates precisely that exceptional and paradoxical phenomena are in question—phenomena quite outside the known principles of thought and life.²

He adds further that on the day when we shall know the principles and real causes, either those facts will be joined together with facts from which we wrongly separate them to-day, and in whose names they will be partakers, or they will get a new and final denomination according to their real nature. One might describe parapsychical phenomena as all the phenomena manifesting themselves among living beings or through their actions, and as being not entirely explained by Nature's principles and powers as already known. Therefore he terms them scientific and extrascientific, psychopathical and cryptopsychical (or cryptoid). The latter phenomena are those "that still wait at the door of science for the moment when they shall enter."

scientific," points out that "a phenomenon does not cease being scientific solely because the greatest number of scientists have not yet admitted it." This is certainly not a question of majority. But to-day everybody agrees well enough concerning the meaning of the word scientific—that is, positive science. Therefore it is proper to acknowledge that phenomena have a period of scientific existence, which of course one must not confuse with the anterior period of their real existence. Indeed phenomena exist before they are scientifically surveyed, but there is a day when they enter the domain of science, when the scientific demonstration is made.

¹Émile Boirac, *La psychologie inconnue. Introduction et contribution à l'étude expérimentale des sciences psychiques*. Library of contemporary philosophy, 1908.

²In a recent article (*Annales des Sciences Psychiques*, 1908, p. 8), Charles Richet repels the word "parapsychical," which he says means "erroneous psychology," and maintains "metapsychical." Metapsychical will be the science which comes after psychology. "On the day when phenomena actually occult shall become scientific, they will enter the domain of psychology, as a matter of course, without *para* or *meta*."

It may be gathered that, touching principles and classification, we entirely agree with the Provost of the Dijon University.

II. HISTORICAL ACCOUNT

2. In all times there has been a love for the marvelous. The attractions of a scientific mystery have not been the appanage of any one epoch. Even the most skeptical centuries have often been the most easy of belief. As Paul de Rémusat¹ observes, Mesmer reached Paris the very year when Voltaire came back to die. At this moment "people without doubt were very little fond of miracles, but everyone was longing for the marvelous." "Such is the axiom," says Emile Faguet: "man wants to believe a thing not proved as yet; or, in other words, he wants to believe a thing that only a believer can believe." Man is "a mystical animal."

One can divide into three periods the stopping places of the prescientific wonders of the last century: the period of Mesmerism; the period of Spiritualism, and the present period.

3. THE PERIOD OF ANIMAL MAGNETISM.²

Authors generally begin an historical account with Mesmer. But Binet and Féré have remarked that "Mesmerism is tributary to a tradition developed in the middle of the sixteenth century." It is in the works of Paracelsus

¹Paul de Rémusat, "The Marvels of Other Times and of To-day," *Revue des Deux Mondes*, Nov. 15, 1861.

²See Dechambre. Article "Mesmérisme" in the "Dictionnaire Encyclopédique des Sciences Médicales," p. 143; Ernest Bersot, "Mesmer; Le Magnétisme animal; les tables tournantes et les Esprits," 5th edition. 1884; Alfred Binet et Ch. Féré, "Le Magnétisme animal." International Scientific Library, 1887.

6 THE PERIOD OF ANIMAL MAGNETISM

that we find the first trace of the doctrine according to which man "has power to exert on his fellow creatures an action like that of a magnet." Whatever the fact may be, at least the stupendous scope of Mesmerism or animal magnetism dates from Mesmer (1734-1815).

In 1766, Mesmer, in his thesis for his doctor's degree in Vienna, studied the influence of the planet on the human body. In 1774, he was surprised by experiments made by Father Hell, "a Jesuit professor of anatomy," who "healed the sick by means of magnetic iron," and arranged a private asylum in his home, where he used to magnetize and electrify people.¹

Then, in 1776, he gave up those two agents, and only mesmerized people.² In 1778, he reached Paris. This was the primitive age—or, "the age of the trough."

"In the middle of a spacious room," says Bersot, "is a circular oaken chest, about one foot, or one foot and a half high, called 'baquet' (trough). This trough simply contains water, and in this water some articles such as broken glass, filings, etc., or even those same articles without water, nothing having been previously electrified or made magnetic. There are in the lid some holes out of which come arms of iron, bending and movable. In a corner of the room is a piano. Someone plays different

¹In 1749, Sauvages had already made electrical trials in Montpellier (Lecerle, "Nouveau Montpellier médical," 1892). Of this period, the brothers Goncourt have written: "It is fashionable for ladies of studied elegance to go and be enraptured by the 'séances' of Abbé Nollet, and to look at fire coming forth—fire that made a noise coming out of the scratched chin of a valet." See "Le Médecin de l'Amour au temps des Marivaux." "Etude sur Boissier de Sauvages," 1896, p. 68.

²According to Charles Richet (Société de Biologie, 1884, p. 334), when Mesmer used for his fluid the term "magnetism," this was not alone because he assimilated it in a special manner with the magnet, but because it was at this moment understood that the power exerted at a distance, without direct touch, was a magnetic power.

tunes in various measures, especially when séances are coming to an end. Sometimes singing takes place. Doors and windows are securely closed and locked. Curtains allow only a dim light to enter. Patients silently make several circles around this trough, and each of them has an iron arm applied to the sore part of his body. A rope tied to their waists unites them together. Sometimes a second linking is established communicating with the hands; that is to say, by applying thumb to thumb and finger to finger. Patients are magnetized at the same time by the iron arms, the rope, the joining of thumbs, and the sound of the piano or the singing voice. The magnetizer staring at them, moves in front of their bodies, his switch or his hand." Then happen odd scenes, convulsions, sleep, tears, hiccoughs and laughter. All are brought under subjection to the magnetizer. The master of this company was Mesmer, dressed in pale lilac-colored silk attire, or in any other agreeable color, moving his switch with superlative authority. Deslon¹ was there with assistants that he had selected, young and fair. The room wherein those scenes were enacted has been termed "The Convulsions Hell."

On March 12, 1784, the king appointed a committee, whose members, belonging to the Faculty of Medicine and the Académie des Sciences, were to investigate Mesmerism. In their report, worked out by Bailly, the committee proscribed the theory of animal fluid, and came to the conclusion that everything in those experiments depended on three agents: imagination, contact and imitation.

Marquis de Puységur, who followed Mesmer, found out

¹Superintendent of the Faculty of Medicine and first physician to Count d'Artois, Deslon in 1780 was inhibited for a year and forbidden to partake of the Faculty's deliberations, his name to be stricken from the Faculty table at the end of the year in case he did not mend his ways.

new and curious facts. On March 8, 1784, he saw a man whom he had magnetized fall peacefully asleep, "speaking aloud and attending to his own business." This was the first public illustration of instigated somnambulism. During his sleep the patient saw whatever the magnetizer wished him to see. The man magnetized a tree, and by means of that tree had power over a very large number of individuals. "Patients," he said, "gather around my tree. This morning there were over one hundred and thirty. There are continual goings and comings in the neighborhood. I spend two hours there every morning and my tree is the best possible trough; there is no leaf in it that does not heal." To awaken his "subject," he touches his eyes, or sends him to kiss the tree by which he had been recently made asleep and which now disenchant him.

Petetin (1787) described various states of catalepsy originating in magnetism. The Abbé de Faria made people sleep, and this without gestures or movements, but by simply saying aloud, with an imperative voice, "Sleep." "It is from this," says Dechambre, "that dates the vulgarization of this agreeable and eminently useful gift possessed by magnetizers to give a drink any taste that may please one, to change water into milk or make wine into champagne."¹

The experiments made by Dupotet, Foissac and others led to the report presented by Husson to the Académie de Médecine (June 21 and 28, 1831) in the name of a committee that had been appointed ten years before.

¹See Abbé Jose Custodio de Faria, "De la Cause du Sommeil Lucide ou Etude de la Nature de l'Homme." Reprint of the edition of 1819, preface and introduction by Dr. Dalgado, 1906, "Braidism and Fariism, or the doctrine of Dr. Braid on hypnotism compared with de Faria's theory of the lucid sleep." *Revue de l'hypnotisme*, 1906, pp. 116 and 132.

Research may always be misled by premature therapeutical applications and by gifts of divination groundlessly attributed to magnetizers. In spite of the very wise warnings with which Husson's report concludes, people remain obstinate in this way, and always seek for marvelous results from magnetism. Scientists prove the inexactitude of badly observed phenomena and find them premature or ridiculous; but by an illogical, though conceivable reasoning they generalize their inferences, concluding that all magnetism is false, without taking care to find out what is false and what genuine.

Such was the unhappy work of the second committee appointed by the Académie de Médecine (at the instigation of Berna, the magnetizer). This report was issued by Dubois of Amiens (August 12 and 17, 1837), and there was founded a prize of 3000 francs "to such person as could read without the help of eyes and light."¹

No candidate fulfilled the competition's requirements, and at the expiration of the time limit, according to Dubois' motion the Académie decided that from that day (October 1, 1840) they would respond no more to communications concerning animal magnetism; acting thus in the same manner as the Académie des Sciences in declaring not receivable by it all documents referring to the squaring of the circle and perpetual motion.

I know nothing more interesting for everybody than this solemn and final condemnation of a question which two years later Braid was to make enter the domain of positive science.²

¹Not after the manner of the blind; that is to say, "by contact with letters in relief"; but the object to be seen was to be placed immediately before other senses than the eyes.

²The British Association were likewise disposed at that time; in June, 1842, they refused to hear James Braid's communications on this subject.

4. THE PERIOD OF SPIRITUALISM.¹

It appears that in the fourth century, the chiefs of a conspiracy against the Roman Emperor Valens, questioned magic tables after the manner used by actual spiritualists.

Among ancient cases of spiritualism, "one of the best investigated" is related by Dr. Kerner, in his book "Die Seherin von Prevorst," as translated by Dr. Dusart, probably after the English translation of Mrs. Crowe. Kerner has surveyed raps and removals without touch since 1827, when he had with him Madame Hauff. One finds similar phenomena in stories of haunted houses. Some of these were observed at very remote periods. There are decisions of courts cancelling leases for such causes. They were censured at the end of the eighteenth century.²

It was in 1847, in America (at the very moment when Braid "disoccultated" animal magnetism), that in the village of Hydeville, State of New York, new facts were revealed. One night, a Mr. Weekman heard a knock at his door. He opened the door, but saw nobody; opened it again without seeing anything, and then, fatigued by this renewed summons, abandoned the house. His place was taken by Dr. John Fox, his family consisting of his wife and two daughters, one fifteen years old, the other twelve. These are the celebrated Misses Fox, who became the heroines of this haunted house and in whom so much of Spiritualism has originated.

Raps succeeded each other in this house, mysterious and unaccountable. Of course the young ladies attributed

¹See Bersot; Pierre Janet, "L'automatisme psychologique." "Essai de psychologie expérimentale sur les formes inférieures de l'activité humaine." Library of contemporary philosophy. 2nd edition, 1894, p. 377; Jules Bois, "Le monde invisible," 1902, p. 310.

²Maxwell, "Les phénomènes psychiques. Recherches, observations, méthodes." Library of contemporary philosophy, 1903, p. 260.

them to the spirit of an individual who died in the house. With a courage beyond praise they began a conversation with that person. Mr. Fox's elder daughter "tripped several times into the spirit's presence, inviting the noisy creature to answer questions." It answered them. The mother also came and took part in the talking. She heard the spirit announce her children's age. "If you are a spirit," she said, "strike twice." Two taps were heard. "Did you die a violent death?" was asked. Two raps came. "Is your murderer alive?" Two taps were heard. It was agreed with the spirit that an alphabet should be pronounced, and that it would rap to mark a required letter. They came to know that their interlocutor's name was Charles Rayn; that he had been interred in this very house by the murderer; that his wife died two years before, and that he had five children, all of whom were alive. Little by little, in order to facilitate speaking quicker, abbreviations were agreed upon. When the Fox family changed their residence to Rochester the spirit removed also. Finally, after some continuous intercourse with that spirit, the Fox family were able to raise up other spirits, and the three women became leaders. In February, 1850, motions of tables wherein spirits resided and around which a necessary circle was previously made, were authentically testified to. Hands without arms were perceived, as well as a grayish fluid, and all kinds of noises and motions. Phosphorescence was perceptible in the room where the family were congregated. Then, the family went to New York, where they met with the greatest success. Everybody was discussing them. But, as Jules Bois asserts, nobody denied that these American young ladies were making much ado in a proper and figurative sense. Whenever they appeared, noise came out of the walls.

Judge Edwards, who witnessed their séances, was struck

“by the knowledge which the spirits, whom he questioned, had about his own thoughts,” his “most secret thoughts.” By means of raps in walls and objects made to move, spirits began to forward in America the spiritualistic faith. Three scientific commissions acknowledged themselves baffled. A mob in the State of New York threatened to treat the Fox family harshly.

This was sufficient to cause the taste for speaking-tables to go beyond the sea. From America, the craze went at first to Germany, through a letter from a New Yorker to a Bremen resident. The mode of proceeding was indicated, and was immediately made use of.

“Several persons placed themselves around the table in the cabalistic position; that is, made everyone’s little finger touch the one of the next person, and they then waited. Soon, ladies began to shout, for the table was shaking under their hands, and began to turn. Other pieces of furniture turned—arm-chairs, chairs, then hats, even persons who had chains around their waists. They ordered the table to dance, and it danced; to lie down, and it obeyed. They caused brooms to jump, as if they had become conjurors’ horses.”

In France, these feats were made known in a pamphlet issued by Guillard and entitled, “Table qui danse et table qui répond.” Experiments were started in 1853 at Bourges, Strasburg and Paris. “Acting under the pressure of hands methodically placed around it, the table not only turned and danced, but imitated various beatings of the drum, a sham fight with file or volley firings, and then a saw’s gnashing or a hammer’s stroke, and various tunes.” One must read Bersot’s account of these heroic ages of turning tables:

“It was a passion and everything was forgotten. In an intellectual country whose drawing-rooms were generally

famed for the lively conversations therein held, one saw during several months, Frenchmen and Frenchwomen, who have so often been accused of being light-headed, sitting for hours around a table, stern, motionless and dumb; their fingers stretched out, their eyes obstinately staring at the same spot, and their minds stubbornly engrossed by the same idea, in a state of anxious expectation, sometimes standing up when exhausted by useless trials, sometimes, if there was a motion or a creaking, disturbed and put out of themselves while chasing a piece of furniture that moved away. During the whole winter, there was no other social occupation or topic. It was a beautiful period, a period of first enthusiasm, of trust and ardor that would lead to success. How triumphant with modesty those who had the "fluid"! What a shame it was to those who had it not! What a power it became to spread the new religion! What a love existed between adepts! What wrath prevailed against unbelievers!"

By means of raps previously agreed upon, not only did tables answer yes or no, but all the alphabet's letters were given. Then a pencil was fixed to the leg of the table, and it wrote. "Later on use was made of smaller tables, of baskets, hats and even little boards that were especially made for the purpose, and that wrote under the lightest impulse."

It was then found that the part taken in those séances by bystanders was not equally important. Some of the participants were useless, others were necessary, the latter were termed mediums, persons whose presence and cooperation were requisite to obtain motions and answers from speaking tables. Experiments became more and more frequent. The medium worked alone. His hand, drawn by a motion of which he had no consciousness, wrote without help from his will or thought things

that he himself did not know and that he was surprised to read afterwards.

“In that time,” writes Jules Bois (this was in the beginning of the Spiritualistic Gospel), “well-known experimentalists met together in the Rue des Martyrs—namely, Tiedmen Marthèse, ruler of Java and a German cousin of the Queen of Holland; the Académicien, St-René Tailandier, a professor at the Paris Faculty of Letters; Sardou, father and son, and Flammarion. A simple table became the common meeting-place of human talented. Galileo elbowed Saint Paul, and Voltaire became reconciled with Joan of Arc.”

One night M. Sardou “took with him to one of the circle’s séances, M. Rivail, said to be a bookkeeper to the newspaper *L’Univers*, although some others say he was an old taker of tickets at a theater. Stout and practical, he burst out laughing when he heard the first raps.” Later on, he again took interest in the matter, and one day the spirits declared that Rivail “ought to put in order and publish their revelations.” He accepted and became an Apostle of the Spiritualistic church called under the name now famous of Allan of Kardec, and wrote “*Le Livre des Esprits*.” He there set forth what he called “The Spiritualistic philosophy, according to teachings given by higher spirits with the help of various mediums.” This book, as “dictated, reviewed and corrected by spirits,” had a considerable success. As Pierre Janet remarks, it became from the moment the guide-book of the spirits themselves, who did nothing but comment upon it. Then higher spirits, such as Gutenberg and Saint John the Divine, were made to speak and write.

Camille Flammarion¹ has given an account of some of their séances (1861) at Allan Kardec’s.

¹Camille Flammarion, “*Les forces naturelles inconnues*,” 1907, p. 44.

“People met every Friday evening in the Society’s meeting hall (the Paris Society for Spiritualistic Research) in the Passage Sainte-Anne. This society was placed under St. Louis’ patronage. The chairman opened the meeting with a prayer to good spirits. After that invocation, some of the persons sitting around the table were asked to give themselves up to inspiration, and write. There were no physical experiments with turning, moving or speaking tables, Allan Kardec, the chairman, declared that to be of no consequence. At the same period and a few years afterward, my illustrious friend, Victorien Sardou, who had somewhat frequented the observatory, had as medium written queer pages concerning the inhabitants of the planet Jupiter, and produced picturesque and surprising drawings in order to depict things and beings in that gigantic world. One of those drawings showed us Mozart’s house, and others the mansions of Zoroaster and Bernard Palissy, who are, it appears, neighbors in that planet. For my part, I wrote some pages touching upon astronomy and signed them Galileo.”

Then, in 1868, happened phenomena in materialization. Owing to necessary help from a medium who played a part difficult enough to describe precisely, articles that nobody had touched were moved, pencils wrote, being spontaneously lifted up and driven, handwritings appeared on slates that had been locked up in sealed boxes. Then the astonished faithful saw arms, heads and bodies, that came in sight in the middle of a dark room. Sometimes those apparitions were photographed; sometimes they were molded. M. Reymers, of *La Revue Spirite*, graciously sent me a box filled with spirits’ feet and hands molded in paraffin.

5. THE PRESENT PERIOD.

All centuries are equally attracted by the Wondrous. To-day the wondrous is as much admitted, loved and sought for as in previous centuries.

I have already quoted Jules Bois' book, in which will be found a summing up of all that has been done in recent times; since the modern "Magi," such as Sar Peladan-Merodack and the theosophists, who, one day, needing sugar-tongs, materialized by an aerial gesture gherkin-tongs (the creative idea not having been very clear to the mind of the medium, Madame Blavatsky), down to the Luciferians, ironically represented by Léo Taxil, Bataille and Diana Vaughan; since the magical hate and love charmers, the "hope-vendors," diviners and chiromancers like Mme. de Thèbes, the "Popess of spotted cards," the "Seer of the Rue des Halles" and the "Zouave Jacob," a professor of theurgy; since Mme. de Girardin was made to spend the latter years of her life in company with Mme. de Sévigné, Sapho, Molière, Sedaine, Shakespeare, and Victor Hugo, making tables speak on the seashore, and Victorien Sardou building up on a piece of paper, with the spirits' assistance, small palaces made up of music-notes, and Augusta Holmès, the celebrated musician, receiving messages from the other side of life; since Paul Adam suffered "during more than a year the assaults of an evil spirit that dictated to him bad advice." Jean Lorraine was carried away into the shadow by the "cold hands" of the spirits, and Queen Victoria wept over the death of the medium through whom she had been able to have talks with the Prince-Consort. And so on, from these to those Spiritualistic séances, "mediocre and stercorary," which were called by Huysmans "the MS. of the Beyond."

If our epoch is unlike previous ones, this is not because we are less attracted by the Wondrous, but solely because we are tempted to clothe all in a scientific dress. The characteristic of the "supernatural trumpery" of to-day, says Marcel Prévost, is "abuse of scientific pretensions." The dress of the augurs and prophets is changed. Formerly, people accepted the god's messages with the same piety as to-day we admit the revelations of science, or at least those that bear its name, or arrive in its name.

The Wondrous formerly had its temples and sacred books; to-day it possesses its newspapers, reviews and congresses.¹ It is the subject of what are called, quite wrongly,² Psychological Sciences.

All works issued under that title are immediately and respectfully admitted, and soon received with respect by the most cautious minds and in spite of queer and unlikely statements. All that bears a scientific label has become the Koran of our twentieth century.

In 1891, Paulhan spoke³ (*Le Nouveau Mysticisme*) of the important part played in the genesis of a new spirit, "by a mysticism that, far from repelling the scientific system, willingly seeks it." Such is the real characteristic of the point of view. All centuries have been fond of the Wondrous, have sought after it, have surveyed it. Ours has been adapted to this perpetual human taste by new methods and tries to make it a matter of science.

It is certain, however, that the study of Occultism has assumed a much more serious and scientific aspect. Men such as Aksakoff, W. Crookes, Dariex, Durand, De

¹See Lilian Whiting's article (*Annales des Sciences Psychiques*, 1907, p. 1), touching "camp-meetings" in the United States.

²Boirac thinks the term "psychical phenomena" quite unappropriate.

³See also Paulhan, "Les hallucinations véridiques et la suggestion mentale," *Revue Philosophique*, November 1, 1892.

Gros, Gibier, De Gramont, Pierre Janet, O. Lodge, Lombroso, Maxwell, Myers, Ochorowicz, Charles Richet, De Rochas, Sabatier, Stainton Moses, R. Wallace, de Wetteville, Zöllner, etc., have brought into their experiments the scientific spirit and methods.

In 1893, a time almost of revolution, I promised to preside at the Montpellier Faculty of Medicine, during the presentation of a thesis about occult psychological phenomena. There was a certain amount of boldness in thus sanctioning "an attempt to make the wonderful enter the official sphere." By this treatise Albert Coste,¹ with real learning, acute criticism and highly developed literary knowledge, set matters in order and made "an official report on the actual condition of the subject."

A little before that publication, Dariex, wishing to establish and perpetuate in France the work of the Society for Psychological Research,² founded in London, issued the "Annales des Sciences Psychiques," which is still published and where is found the richest documentation of all these questions.³ In a preface to the first issue of this publication, Charles Richet said: "We endeavor to make a number of mysterious and unseizable phenomena pass into the sphere of positive sciences." Such, indeed, must be the aim of Science in its intercourse with Occultism.

¹Albert Coste, "Les phénomènes psychiques occultes. Etat actuel de la question," 2nd edition, 1895.

²See Arthur Hill, "Society for Psychological Research." "A look backward and a look forward." *Annales des Sciences Psychiques*, 1906, p. 721.

³See also, for this documentation, the "Echo du Merveilleux" of Gaston Méry, whom I thank here for his kind welcome to my article concerning Occultism (see *Echo du Merveilleux*, 1906, p. 470). Charles Richet quotes the following journals: *Light*, or *Banner of Light*, *La Revue Spirite*, *la Revue du Spiritisme*, *la Revue des Etudes Psychiques de Marseille*, and others.

6. OCCULTISM THE PROMISED LAND OF SCIENCE.

The conclusion following from this historical account is that if love for the wondrous remains untouched throughout centuries, the nature of this wondrous is continually altered. These alterations are not a circular movement, with returns to the same place (like the squirrel in a cage), but a continuous motion of progress forward. A good many phenomena, surveyed as occult half a century ago, are no longer so, but have become scientific. Science, which is never final, invades everyday occultism's dominion whose boundaries recede without end. So this dominion of occultism is as the promised land of science.

In the same manner as astrology and alchemy have to-day become replaced by astronomy and chemistry, so have many phenomena formerly dependent on sorcery, that is to say occultism (anesthesia, convulsions, etc.) finally entered the domain of science, and belong to what we call psychoses, hysteria or somnambulism. We shall see (and this is one of the aims of this book) that animal magnetism has become scientific under the name of hypnotism, that turning tables, willing game with touch, the conjurer's wand, and a certain amount of mediomical phenomena have ceased to be occult phenomena.

One sees that if there is still an occultism, the phenomena surveyed under that name are various from one epoch to another, and it is consequently interesting from time to time to set matters in order, so that the public may be guided or at least have a precise starting point, for reading and examining the innumerable publications issued respecting that subject. It is especially necessary to set forth occultism's balance-sheet, of which the public is usually tempted to generalize in haste. Since many phenomena formerly occult are to-day formally admitted by

positive science, many would carelessly infer that all other occult phenomena, such as materializations or telepathy, are equally scientific.

Surbled quotes somewhere this sentence of a magician: "Hypnotism is our waiting-room. We shall all pass behind Charcot." No. This is a mistake. He that is willing does not always enter into the realm of science. When a new group of phenomena have been surveyed and fixed, just as hypnotism has been investigated by Charcot, Occultism will have one chapter less and positive science one chapter more. This work of control must be done, not in a lump for all occult phenomena, but bit by bit and successively for each group. Neither Charcot's experiments of hypnotism, nor those of Pierre Janet on turning tables, justify the assertions of contemporary occultists, which have a mighty power over the public, as testifies Saint-Quentin of whom I shall speak again.

In the same manner, to prove the possibility¹ of a phenomenon is not sufficient to establish that it is scientifically genuine. Arguments by analogy are vain. The wireless telegraphic communications between the Eiffel Tower and Casablanca do not prove telepathy's existence any more than the discovery of the N rays would have proved (had it been confirmed) that mental suggestion is a reality.

Nothing is therefore more useful than to fix the precise boundaries of occultism's actual dominion—that is, to reckon the scientific ship, as Emile Faguet says in his preface.¹ For the basis of any sound science is knowledge

¹Several authors waste much of their time to demonstrate the unquestioned evidence of the following sentence of Arago, quoted by Boirac: "He who, out of mere mathematics, utters the word impossible, lacks prudence." He who with all that is possible should try to make something true, might lack prudence also. "An irrefutable demonstration is still to be found," writes Jules Bois (p. 87). There difficulty begins,

of the acquired realm's exact limits, and also knowledge of those unknown limits yet to be found beyond, and of methods by which everyone should try to draw back those limits and so "disoccult the occult."¹

Recently Charles Richet,² answering Bormann's criticisms, stated in the *Psychische Studien* (1907, No. 6) that the terms "occult" and "occultism" are abominable and indefensible. He is right if one places side by side the words "occult" and "science." "Occult science" means nothing, but "prescientific occult" has a meaning. Indeed, Charles Richet himself asserts, in the same article, that "this neologism (metapsychical) distinctly signifies a near normal psychology; there is another psychology, still very dark, very questionable, and even rather occult up to now;³ but perhaps, if we laboriously and methodically analyze the facts, it will lose its dreary characteristic of occult. We wish, through a survey of the facts, to develop some rules that will teem with new and grand hints. In other words, we wish to make it scientific."

Such is exactly the program that I intend to go through; in more simple words to disoccult the occult, and so to invade the promised land.

exclaims Mr. Charles Richet. In "metapsychical" sciences all is real and nothing is real. That is to say, all is possible and nothing is proved. It is almost impossible to admit anything in an indisputable and definitive manner. One always ascertains a cleft through which hesitations enter. The "experimentum crucis," as the alchemists said, is still to be found; that is to say, unquestionable proof.

¹This pleasing expression is due to Goudard (*Bulletin de la Société d'études Psychiques de Marseille*, 1903, p. 48).

²Charles Richet, "Metapsychism or Occultism?" *Annales des Sciences Psychiques*, 1908, p. 8.

³This is the "psychologic inconnue" by Boirac.

III. WHAT OCCULTISM IS NOT

7. To make still more precise the definition above given, I must insist on what Occultism is not, and point out some necessary differences in order to avoid confusions. I have been strongly held to account for having neglected those distinctions in my book, "Spiritualism and Science." "We regret," says Becker,¹ "that Dr. Grasset, speaking about Spiritualism, has taken his information, not from the spiritualists, but from Papus's book: 'Occultism and Spiritualism.' It is very strange to learn that a professor may be to such an extent mistaken, for, after all, Spiritualistic doctrines are not those of occultists, and it is deplorable to see such an error almost officially extended."

And Papus:² "From the beginning of the work, Grasset makes an error that will be continued throughout his book; it is an erroneous classification of the Spiritualistic doctrines. Lacking a sufficient amount of patience to risk himself in a dominion unknown to him, the professor mixes together in the same salad, occultists, spiritualists and even catholic psychics, like Gaston Méry. I already hear incriminations against the author because he has given from one of my books an account of the Spiritualistic doctrine! But I am an occultist, dear professor, an awful occultist, as the spiritualists would say!"

My emotions have not been very intense in consequence of these criticisms, because I think the question has only reached the stage of making a survey of the facts. People still ask themselves what exists and what does not exist, and I do not think the moment fit for choosing out of the "salad" some one of the theories as the best. But there is a fact, and I acknowledge it. Our use of terms is never precise enough.

¹Becker, *Revue Scientifique et Morale du Spiritisme*, 1903, p. 735.

²Papus, *L'Initiation*, 1903, p. 243.

8. THE TRADITIONAL SCIENCES OF THE MAGI, THEOSOPHISTS, AND SPIRITUALISTS.

At first it is easy to see that my use of the word "occultism" differs from that of Papus (Dr. Encausse) in his "Traité Élémentaire de Science Occulte."¹ For this author, and those who think like him,² occultism, "everywhere identical in its principles," is a digest of learning that "constituted the traditional science of the magians." It is "a very ancient tradition, whose theories have not changed in their essential basis, after more than thirty centuries."

In the introduction to his book on "Occultism and Spiritualism,"³ the same author sets forth very clearly the principles and origin of occult science. "The way," says he, "that has led us to our actual notions concerning Man, the Universe and God is far from being a new one, as it depends on ideas professed in the temples of Egypt, 2600 B.C., and that have later constituted Platonism and for the most part Neo-Platonism. Many of those inquirers have applied themselves to the antique philosophy of the Patriarchs, of the Egyptian imitators of Moses, to the agnostics, to the Christian visionaries, to the alchemists and Rosicrucians. This philosophy has never varied in its teachings throughout the centuries, and is as able to-day to explain the phenomena of Spiritualism and sound hypnotic sleep as in the eighteenth Egyptian dynasty, the

¹Papus, "Traité Élémentaire de Science Occulte; mettant chacun à même de comprendre et d'expliquer les théories et les symboles employés par les anciens par les alchimistes, les astrologues, les E. . de la V. ., les kabbalistes," 7th edition, 1903.

²The word occultism is used in the same manner by Emile Laurent and Paul Nagour, "L'Occultisme et L'Amour." 1902.

³Encausse (Papus), "L'Occultisme et le Spiritualisme Exposé des théories philosophiques et des adaptations de l'Occultisme." Bibliothèque de philosophie contemporaine, 1902.

connection between the Khâ and Khou, of the physical and luminous bodies, in their action upon the Baï, upon the intelligent spirit. This philosophy is actually known under the name of Occultism."

Evidently this class of knowledge is not included within the ordinary range of our sciences. When we try to discuss the rights of our knowledge to be admitted, even eventually, as scientifically existing, we must accept as means of demonstration, only observation, experimentation, deduction and induction. As Maxwell¹ very well says, "Analogy and connections are not equally important in ordinary logic." Besides, to consider an esoteric interpretation of the Hebraic Books as expressing the Truth, does not seem to me prudent. I do not see any reason why I should have given up my belief in their esoteric assertions only to trust their Talmudical or Kabbalistic meaning. I hardly think that the medieval Rabbis or their predecessors, the contemporaries of Esdras, had a more precise notion than ourselves about human nature. Their blunders touching physics are no guarantee of their being right in metaphysics. The truth is not to be investigated through the analysis of a book very beautiful, but very old. "The occultist," says Jules Bois, "cannot submit to becoming a simple and modest seeker, a truthful experimentalist."²

I shall not deal with theosophy either. This "queer mystical movement provoked in Europe and America by the teachings of Mme. Blavatsky, Col. Olcott and Mrs. Annie Besant," is only a sort of religion, "an irreligious re-

¹Maxwell, *loc. cit.*, p. 5.

²"In fact, well knowing them," says the same author (*loc. cit.*, p. 60), "I do not believe either in the influence or the scientific knowledge of small mystical societies, all of whom originated in the second half of the nineteenth century, in spite of their claiming to be very ancient. To draw rusty swords, to put on worn-out carnival masks, to repeat, not understand, sentences and lifeless rites, can lead to nothing."

ligion," says Jules Bois but has nothing to do with positive science. To my mind, the word "occult" has therefore nothing in common with the words "concealed," "kept secret for initiated persons," "esoterical," or "hermetist."

One can investigate occult phenomena, even the most complicated, such as materializations, without being an occultist according to the meaning which I have just indicated, and without being a theosophist; I may say also without being a spiritualist. This is a second difference. There must be no confusion between Spiritualism and Occultism, such as I describe.

Spiritualism is a theory that I shall further discuss¹ as admitted by some authors to explain the faults of occultism. But one may investigate the facts without submitting to the theory. One can make tables turn, or perhaps be a medium, one can try even transmissions of thought, or materializations, without raising up spirits. One of the ends of this book is precisely to prove how necessary it is for all to survey theories and parts separately.

9. THE SUPERNATURAL AND MIRACLES.

The question of the supernatural is quite unlike that of occultism. Not only the supernatural is not scientific (in that it resembles occultism), but it will never be so; it cannot be so; it is not prescientific, and in short, it utterly differs from occultism. As I have said elsewhere, the supernatural does not belong to biology and consequently is not within my department. I have always been absolutely in favor of separation between our various classes of knowledge. It is the theologian's business and not that of biologists to assert whether in certain circumstances more or less analogous to those which I here examine, there is any interference from supernatural beings—angels, devils, or

¹Part 3rd—A. Chapter 7th.

deity. Goupil¹ does not understand this conception and opposes it. At first, he asserts, "Theologians have not further advanced than ourselves; they have not demonstrated a supernatural existence. The supernatural is unintelligible."

It is exactly because the supernatural is not scientifically intelligible that I refuse to deal with it, wishing only to make science positive. It is no business of mine to know whether the theologians have proved a supernatural existence or not, since I separate theology from biology.

Any chapter that, from theology's department comes into that of biology, ceases, *ipso facto*, to belong to the supernatural. Therefore I can assert that the question of angels and devils remains a question of theology, and not at all of biology. Biology is not aware of them. I have therefore a right to maintain those water-tight divisions between our various groups of knowledge, those "Limites de la Biologie"² to which I am the more attached because for their sake I have received jests and sarcasm from different philosophical sects,—by Le Dantec³ and Gaston Méry⁴ for instance.

I may as well observe, that by so speaking, I take away nothing of the worth of our knowledge of the supernatural.

¹Goupil, "Quelques notes sur l'exposé de M. Grasset, 'Le Spiritisme devant la science.'"

²"Les Limites de la Biologie." Bibliothèque de Philosophie Contemporaine, 5th edition, avec une préface de Paul Bourget, 1907.

³Félix le Dantec, "Les Limites du connaissable la vie et des phénomènes naturels." Bibliothèque de Philosophie Contemporaine, 1903, p. 121. In *La Revue Philosophique* (September, 1906, p. 276), Le Dantec announces his intention to discuss this matter again (on monism) more minutely, in a larger volume, where he will one after another review the objections to M. Grasset's book, "Les Limites de la Biologie," the first chapter of which I have already answered and probably been the only one to answer, if I refer to the preface of the 2nd edition.

⁴Gaston Méry, *L'Echo du Merveilleux*, February 15th and June 1st, 1903. Gabriel Caramalo, *ibid.*, March 15, 1903.

I only say that this knowledge does not belong to the scientific order, and that were it to be possible one way or another to "explain" a miracle, it would be a miracle no more, that consequently supernatural and miracle¹ are neither scientific nor prescientific; they are not included within the range of the occult phenomena which I survey in this book.

Though entitling his book "Le Miracle Moderne," Jules Bois adopts the same opinion.² "I have kept the term 'miracle,'" he says, "because it spreads a special and poetical charm that comes from the past. But there is to be inferred no idea of religious or philosophical conviction." And he says further: "In my opinion the documents supplied by modern miracles will not help to start a new religion. I shall prove that the sanctuary of miracle is the person in whom the miracle operates; miracle works in the unconscious regions of our being. It is due to the inner man."

Jules Bois is kind enough to add that this "psychological analysis is adapted to the principles illustrated by "Les Limites de la Biologie"³ and concludes, "The miracles that I examine in this book are not miracles according to the Roman Catholic sense⁴ of the word. They belong to laical criticism."

¹"Miracle," according to St. Thomas, "is a free interference of God; what has been done by God outside the regular course of Nature" ("L'Action franciscaine," quoted by *l'Echo du Merveilleux*, 1904, p. 480). As science investigates only what is in Nature's natural course, miracle is quite by definition outside of science to-day and forever!

²"Le Miracle Moderne," 3rd edition, 1907, by Jules Bois.

³"It is good for each science to determine and know exactly its limits. It is a condition of growth and success." P. 9.

⁴See further (Part III. A. Chapter 9th) what I say about the independence of occultism with regard to various religious and philosophical systems. See also Gaston Méry's and Jules Bois' controversy about the latter's opinions. *Echo du Merveilleux*, 1907, pp. 281, 321, 341, 364, 381.

Now the ground seems to me to be clearly bounded and enclosed. I limit occultism to the investigation of phenomena that, first, does not belong to science, second, that may without logical hindrance belong to it later on. In a word, it is the prescientific Wonders.

CHAPTER II

DIFFICULTIES IN THE PRESENT STUDY OF OCCULT PHENOMENA

- I. COMPLEXITY OF DETERMINISM IN EXPERIMENTS.
 10. *Occult phenomena cannot be reproduced at will.*
 11. *This experimental determinism is a fact, though, and must consequently be investigated.*
- II. THE FRAUDS OF MEDIUMS.
 12. *Frauds in general.*
 13. *Voluntary and conscious frauds.*
 14. *Frolicsome people and nervous sufferers.*
 15. *Instances of fraud. Unconscious fraud.*
 16. *Conclusions. Caution to be observed.*

COMPLEXITY OF DETERMINISM IN EXPERIMENTS

10. OCCULT PHENOMENA CANNOT BE REPRODUCED AT WILL.

We have seen in the preceding chapter how the whole world has been engrossed by occultism, how everybody's attention has been attracted on every side to verify and criticize it. Why has the work of control not yet been achieved? How does there still remain something occult, since many facts have been asserted and observed, not only by men of unquestionable good faith, but by men who, like Willaim Crookes and Charles Richet for instance, are well-known scientists and are acquainted with what scientific method and experiment ought to be? How and why does the problem still appear so trying?

The reason for all this is simple. Occult phenomena cannot be reproduced at will, and consequently one cannot

apply to them the usual strict methods of scientific control.

First, a medium is necessary; that is an individual of special aptitude. Therefore it is impossible to make experiments with anybody, in a laboratory, however so well arranged it may be. Moreover, when you have found a medium the experiment does not always succeed. There is a casualty in results, complexity, and let us say mystery in determinism, that makes failures numerous and takes away a part of the value of the results.

Maxwell, who, more than any other person endeavors to submit a survey of those phenomena to scientific discipline, acknowledges that, apparently at least, these phenomena do not permit such a discipline. One may observe, indeed, but not experience. "To test one must know the condition of fact whose existence and connection imply another fact in consequence; but we know very imperfectly the conditions of fact necessarily preceding the phenomenon dealt with. We resemble the astronomer, who can apply his eye to the eyepiece of a telescope and observe the firmament, but cannot provoke any certain phenomenon." Let us add that such a comparison is available only when applied to the period when astronomy was not yet a mathematical science. If scientists "try, *a priori*, to set the conditions of their experiments, they run the risk of having no result worth mentioning.¹

Charles Richet² also declares that he "was a long time disturbed by the difficulty of obtaining precise experiments," and he does not fear to assert "after long years that even now such a difficulty persists and is very serious." In fact, in proportion as precautions are multiplied it seems that

¹Maxwell, *loc. cit.* p. 1, 13, 27.

²Charles Richet, *faut-il étudier le Spiritisme?* *Annales des Sciences Psychiques*, 1905. p 1, 23.

the intenseness of the phenomena is increased. Scientific instruments are indeed seldom used in experiments. One must not forget that by introducing a new instrumentation into a circle wherein without instruments regular experiences have happened, there occur great disturbances, and owing to this fact in most cases the phenomena ceases immediately. Any change in the surroundings paralyzes for a time the phenomena. It is also asserted that the coming of a new person into spiritualistic circles may cause the same disturbance as the introduction of a new instrument. It is even possible that the mind of another may decisively have influence over the psychism of phenomena. Skepticism, doubt, distrust of a medium's sincerity may bring a sort of paralyzing influence. The other objection, not less serious, is that under identical conditions results may not be identical, so that the test cannot be reproduced at will. Spiritualism has not yet come to the period of scientific experimentation. Such uncertain conditions make science itself uncertain.

11. THIS EXPERIMENTAL DETERMINISM IS A FACT AND MUST CONSEQUENTLY BE INVESTIGATED.

Charles Richet's declaration is quite correct. I have desired to show how carefully he has made it as one of those who seem to be indulgent towards Occultism. There lies, no doubt, a real difficulty in surveying occultism. But this is not a difficulty that cannot be overcome, nor is it a cause for definite failure.

If these phenomena are real, they have their own determinism. Determinism is complex and in these matters as yet unknown; but if the facts are real, a solution exists. We must therefore not despair of finding things out. At any rate, we have a right to make investigations.

In order to explain how it is so difficult to investigate these phenomena, Maxwell says, "People are inclined to

persuade by indicating the precise conditions of the test. Those whom one is desirous of persuading are the very ones less prone to be persuaded and who will judge the conditions in which psychical research is successful. They are natural philosophers, or chemists; living substance does not react as do inorganic or chemical substances. Nothing is more exact. They react in a different way, but they necessarily react according to a well-known determinism."

There are many biological phenomena whose determinism is known and which we are quite able to provoke at will. The whole of physiology leans upon experimentation, more than upon observation. Biological determinism is consequently more complex; it is not so easy to analyze as physico-chemical determinism. But it is not beyond the reach of investigation by positive science. Charles Richet knows it and has proved it more than any other person.

Even among the biological phenomena, such psychical phenomena, as are much more complex, are apt to be scientifically investigated.

Papus¹ in the manner aforementioned, opposes the psychical fact to the physiological one. This is true, however, only when the word "occult" is used with the same meaning as "psychical." But this is a meaning which I refuse to accept.² I think it better to preserve the traditional and classical meaning of the words "psychism" and "psychical." I call "psychical" an act, a phenomena in which reside thought and intelligence. By this you will see that I do not interpret it according to the manner of Maxwell's book,³ or of the "Annales" of Dariex.

¹Papus, *loc. cit.*, p. 436.

²See "Le psychisme inférieur. Etude de physiopathologie clinique des centres psychiques." Bibliothèque de philosophie expérimentale, 1906, p. 7.

³Elsewhere (*Annales des Sciences Psychiques*, T. 14, 1904, p. 2761) Maxwell asserts that the term "psychical research" is a bad expression and

By preserving the etymological sense of the word "psychical," it is impossible to oppose it to the word "scientific." For we may say only what there is to say, on experimental and scientific ways of research as to "psychism," psychical facts and functions, and even psychical centers.

Besides, what has happened in earlier occultism (the one I shall investigate in the second part of this book) with phenomena formerly occult and now "disaffected," is singularly instructive. For hypnotism, for turning tables, for willing game with touch, a subject is needed, a medium. However, we have learned its experimental determinism and they have now entered the realm of positive science.

In any case we must cease saying that there lies the hope for solving this problem of the existence of occult phenomena which might be scientifically and forever proved and their determinism explained as Charcot and Bernheim have done with hypnotism.

Three or four years ago Charles Richet wrote me: "I have had, for a few months, some facts that seem to me to defy any investigation. But they lack something. They are unique and cannot happen again so that the scientific moment has not come yet and I do not publish them."

One should be able to say more. We must be able to verify a fact that is scientifically respectable. Until that moment there is nothing done.

12. FRAUDS IN GENERAL. THE FRAUDS OF MEDIUMS.

Workers are discouraged by another difficulty and a most serious one: that is the frauds of mediums. We must ex-

"that one should seek for another one." And Charles Richet, in his speech for the installation in the chairmanship of the Society for Psychical Research (*Revue de l'Hypnotisme*, 1905, p. 258), has proposed the words already referred to—"metapsychism," "metapsychical," by analogy with "metaphysical."

aggerate nothing, and it would be absurd to say, *a priori*, that all mediums deceive, and especially so to assert that they always deceive, even when it is proved that they have sometimes deceived. But the deceits of mediums exist and they are frequent. Some of them are conscious and voluntary. Maxwell asserts that others are mixed. Indeed some are conscious and involuntary. A few mediums are willing to deceive and consciously do so. Some others deceive only through their lower disaggregated psychism when in trance. They are polygonal defrauders. Any bona fide person that makes a table turn is an unconscious defrauder. Lastly, some others are polygonal deceivers but they notice it through their upper center.

It may be gathered by this that in some cases I do not use "frauds" in its fine meaning. To speak exactly there is "fraud" only where there is intention to deceive. Therefore it is evident that the medium who deceives through its polygon has no intention whatever to deceive. It is the same with the juggler who hides his tricks the best he can, but does not pretend to occultism, and acknowledges that there is a trick in his case.

I preserve this word under such restrictions because it is expedient to put into the same chapter all those causes of mistakes that constitute the most obstinate nightmare for all men examining these phenomena.¹

13. VOLUNTARY AND CONSCIOUS FRAUDS.

Voluntary and conscious deceit is that which we can see at fairs and theatrical meetings, that of the juggler, and of all those who practice tricks. When dealing with mind

¹One of the two Misses Fox above referred to, and who played such an important part in the history of Spiritualism, has made a confession in which she acknowledges that she had cheated (Jules Bois, *loc. cit.*, p. 175).

reading, I shall speak about some tests made under such conditions.¹

As it is sometimes very hard for the bystander to find out those tricks even when the juggler himself acknowledges their existence,² all experiments made with such subjects must, *a priori*, be suspected. I shall recall here some facts well-known in that respect. In 1892 the *Daily Telegraph* related tests absolutely astounding as made by Annie Abbott³ the "little Georgia Magnet," which became conspicuous in the London Alhambra, and showed "a power, which, had she lived during the age of Inquisitors, would have directly led her to the pyre."

The "little Magnet" shakes violently, on the right and on the left, a chair and a vigorous man that opposes her strongly; six men are unable to lift her up. Seizing with her two hands a billiard cue, she stands upon one foot, and seven men taking hold of the billiard cue, vainly attempt to make her lose her balance. Dr. Henri Goudard witnesses

¹Third Part. B. Chapter XI. I.

²People of my generation remember the closet of the brothers Davenport. Twenty years before, Babinet said ("Des tables tournantes au point de vue de la mécanique et de la physiologie; les sciences occultes au XX^e Siècle, les tables tournantes et les manifestations prétendues surnaturelles au point de vue de la science d'observation." *Revue des Deux Mondes*, January 15th and May 1st, 1854), "Is it not more surprising to see taken out from a hat given to a juggler an omelet or a big, living rabbit than to make a light table move?" About these tests ascribed to spirits by the brothers Davenport, and the mechanism of which was uncovered by Robert Houdin, see Rouby, "Bien-Boa et Chas. Richet" (*Bulletin Medical d'Alger*, 1906, p. 668).

³See "Une Femme Etrange," *Annales des Sciences Psychiques*, 1892, p. 60; Henri Goudard, "Apropos de Miss Abbott (The Little Georgia Magnet)." *Ibid.*, 1895, p. 49; Oliver Lodge, "Sur les tours de force de Miss Abbott, connue sous le nom de 'the Georgia Magnet.'" Réplique au Dr. H. Goudard. *Ibid.*, p. 99; H. Goudard, "Notes et Réflexions Complémentaires sur Miss Abbott." *Ibid.*, p. 174; James Hyslop, "A propos de Miss Abbott." *Ibid.*, p. 395.

these tests at the Casino de Paris and investigates them with care and comes to the conclusion that she is an active medium, voluntarily entrancing herself, and preserving during trances the outward look of waking-time, normal connections with the surrounding medium, and strong magnetic power.

The whole of Miss Abbott's tricks have been quite scientifically examined by Sir Oliver Lodge, and he has shown that in such tests there is nothing occult or magnetic. All depends on the subject's strength and skill. It belongs to legerdemain, not to occultism. Having very seriously surveyed the case, Hyslop confirmed Lodge's assertions, but came to a more scientific conclusion: "I shall no longer deal with these tricks. I have said enough to establish that they are fraudulent, and we may be sorry that such men as Dr. Charcot were so utterly deceived as to suppose that Miss Abbott possessed an unconscious hypnotic influence over those that took part in tests with her. Her tricks were nothing but common juggling with the laws of mechanics. According to my experience, there is no doubt that Miss Abbott usually told lies. I had many times the evidence of it. This alone would be sufficient to induce us not to be deceived by her tricks, even if we cannot explain them.

Kellar¹ a well-known juggler, about 1895, made tests of direct writing in America and elsewhere with the English medium, W. Eglinton, a very successful imitator of handwriting on slates, and finally offered "to imitate any mediumical phenomena after having witnessed it two or three times." One of the most noteworthy instances of a juggler having perfectly imitated the mediumical phenomena is

¹See "Lévitacion," *Annales des Sciences Psychiques*, 1895, p. 243. Information. *Ibid.*, p. 318; Michel Petrovo-Solovovo, "A propos du prestidigitateur Kellar." *Ibid.*, p. 373.

certainly Davey.¹ He has chiefly practised direct hand-writing on slates.

Hodgson has chiefly surveyed Davey's work. I cannot describe it all here, but it will be found described in the work quoted in the under-mentioned notes, in the three following groups of tests: *First*, writing on the upper surface of a slate placed under a table. *Second*, writing on the upper surface of a lower slate, when two slates are placed together under the table. *Third*, writing on the slate locked up by Davey. Hodgson particularly described "the ordinary method used by Davey to substitute one of his locked up slates for another in this third group of tests which was his favorite invention. Maxwell speaking about the slates, says: "It is a phenomenon too easy to be imitated and this is the reason why I have not as yet seriously tried to obtain it. I have myself long since produced an imitation of the phenomenon by placing a pencil in a hole under the table, and moving the slate. When sufficiently used to it one can write quite well."

Davey also fraudulently produced raps and materializations. Hodgson gives an account of a very instructive "séance" in which himself (Hodgson) took part as a "pal," coming in barefoot, lifting up a music-box, striking the ceiling with a long stick, touching the hands of the bystanders with his own hand previously drenched in cold water, making a gong sound, playing the part of a ghost after having assumed a mask made up of muslin with luminous paint, imitating himself a second ghost with a turban, a false beard and a luminous book, and he issues the account of that exciting séance by a confident witness who

¹See Richard Hodgson, "Comment M. Davey a imité par la prestidigitation les prétendus phénomènes spirites." Trad. Marcel Mangin, *Annales des Sciences Psychiques*, 1893, pp. 167, 235, 287, 355; Maxwell. *loc. cit.*, p. 263.

strongly believed he had witnessed a real séance "of materialization."

In the same work Hodgson speaks also about W. S. Davis of New York who gave a few "séances" which have been found by various spiritualists in New York and Brooklyn to be very remarkable. Several spiritualistic papers issued short reports of these séances. Davis expressed the wish to give a "séance" under very strict conditions of control, and appoint a committee to discuss it. This offer was accepted. The test took place and was absolutely successful. The report of it was published under the title, "A Success," but Davis himself declared that all had been fraud. He especially described how to tie oneself up and to loosen oneself.

All jugglers make such an impression on bystanders, and their tests so much resemble those of mediums, that some believers (like T. W. in *Light* of October 20th, 1891) assert without any hesitation that the jugglers have used "physical spiritualism." T. W. alludes to the trick of Bosco which he seems to consider as implying mediumity, and speaking about Dupuy the famous juggler, he says, "I witnessed several experiments a few years ago, and I believe he does not make a trick without being helped or supplanted by an invisible force."

After these opinions which Hodgson declares to be "absurd," I simply came to the conclusion that the jugglers perfectly imitate and reproduce occult phenomena.

Mr. Corney, a spiritualist well known in England, on a certain occasion, was alone in a room with a medium, when he saw, by the medium's side, ascending into the air, a volume of smoke which soon turned into a woman who crossed the room, took an apple from the table, and then disappeared. An account of this interesting event was given by Mr. Corney in the papers. A juggler named Mashenyin

made a bet of 200 francs, that by means of the resources of his art, he would publicly reproduce the scene which had privately occurred before the spiritualist. Mr. Corney took the bet. When the day came, the juggler converted a volume of smoke into a woman and an apple for the benefit of an audience unable to understand anything whatever in the performance.¹

Paris has often had knowledge of "Dr. Comte de Sarak," or "Rama," the "corn-grower" who first welcomed his guests with his breast studded with stars and grand-crosses, and who operated afterwards while attired in a Tibetan tunic, or in a kind of light, white sack overcoat, with broad sleeves, loose on the front. "I must," he said, "dress myself for every experiment, in a robe whose color suits the waves, or vibrations, I have to use in my test." Bystanders would see a yucca growing up, or gold-fish brought forth, together with caviar. He was a vulgar juggler, hiding the stem of his yucca under his clothing, and the fish in a fish-pond that he squeezed behind his back with his hands tied.

14. FROLICHSOME PEOPLE AND NEUROPATHIC SUFFERERS.

Besides professional jugglers, or conjurers, there are frolicsome or neuropathic people who abuse other's confidence, either to make fun of them, or because they are not sound in mind. Such are: Prof. Bianchi, who, desiring to enjoy himself at the expense of Lombroso, his colleague, himself counterfeited a phenomenon during an experiment with Eusapia Palladino; and again the medical student frequently mentioned by Maxwell,² who was an incorrigible defrauder.

¹*Journal des Débats*, October 19, 1906. I think that the tests above referred to are those made by Archdeacon Colley, of whom I shall speak again (3rd part, chapter X, iii, d. e., 2), in connection with Mashenyn, the juggler.

²Maxwell, *loc. cit.*, p. 302.

Indeed, we should strictly beware of any nervous disease whatever, as a frequent cause of lies and frauds: under this head, hysterics rank first.

15. INSTANCES OF FRAUD.—UNCONSCIOUS FRAUD.

Either conscious, or unconscious, or both, mediums who have been convicted of fraud are innumerable. On December 17, 1904, Anna Rothe,¹ the flower medium died in Germany. She was far-famed on account of flowers and fruits. The Prussian police and the German Emperor brought an action against her. Her "mediumistic powers," which had disappeared while she was confined in jail, came back later; there were raps, and trances, and flowers were produced even at her bed three weeks before her death.

Bailey,² the Australian medium, had obtained, in his country, results so utterly astounding, that the Milan Society for Psychological Research had him come to Europe at their expense. The spokesman of the Society, "Luce e Ombra" has related the experiments made in that city.

Those experiments have been scrutinized by C. de Vesme, who says: "This course of seventeen séances, apparently conducted in the best possible conditions, has produced little but unsteadiness and mistrust. Bailey was always operating through darkness, and never did he agree to be entirely undressed previous to the séances, fearing—as he said—to catch cold."³

¹See "Anna Rothe's Death," *Annales des Sciences Psychiques*, 1904, p. 388; "comment mourut Mme. Rothe (cancer de l'œsophage)." *Ibid.*, 1905, p. 53; "Le Président Sulzer." *Ibid.*, p. 571.

²See César de Vesme, "Etude critique des séances du médium Ch. Bailey à Milan et à Rome," *Annales des Sciences Psychiques*, 1905, p. 218; "L'examen archéologique des objets "apportés" dans les séances de Baileý." *Ibid.*, p. 308; "Un peu de polémique au sujet de Bailey." *Ibid.*, p. 309, and 1906, p. 396.

³C. de Vesme is stern in his judgment concerning the medium "who, having come from the antipodes only to show us the would-be marvelous

Once, he completely undressed himself in Australia, and fell sick. He was never tied up. He was placed in a very light, black-satin sack with sleeves, his arms being left free. One day, at Rome, some one, feeling about his body, believed he detected an obdurate substance. Bailey said it was a wen which he had had for years. In the proceedings of the Milan Committee, mention of this wen has never been made. Besides, at Rome, at the conclusion of the séance, those in charge forgot to ascertain whether or not this wen was a fact. The birds said to have been brought from India were dead. It was impossible to get any animals different from those that were living in Italy. Paste said to have been brought by the spirit of an Hindoo woman, was made of flour, and was similar to the paste used in making common bread. A Babylonian inscription, ascribed to King Sargon (6,000 B. C.), was afterwards dated 7,500 or 7,600 B. C., i. e., 1,500 years previous to the reign of its author. Terra-cotta tables with Babylonian print, or ancient coinage of Egypt or India, were declared, at the British Museum, to be valueless imitations, or things to be obtained anywhere for a few pence.

In case you were to deal warily with such mediums, you would have exceedingly deceiving séances. After one of them, Bailey feigned to be called away by private matters of interest, and sailed for Australia.¹

One may readily understand how the Italian novelist, Antonio Fogazzaro, who had been present at those séances, deemed such mediumistic phenomena nothing but trifling.²

gift bestowed on him by Providence, pulls back from his sublime apostleship for fear of a cold in the head."

¹On his way homewards, test séances had been first arranged with him in London. He agreed to the intended careful supervision, but later alleged that he had no time to make any more experiments.

²However, I must record that the *Revue Scientifique et Morale du Spiritisme* is of the opinion that the charge of fraud is lacking in sufficient

Slade,¹ one of the most prominent mediums ever known, in the second half of the nineteenth century, made experiments with Aksakoff that caused the "conversion of Professors Zoellner, W. E. Weber, Scheibner, and E. H. Fichte," and were followed by polemics in which such men as Wundt, Helmholtz, etc., took part.

His special achievement was direct handwriting on slates. Hodgson has shown how Bailey used practically the same tricks as Davey. Once, in London, the medium had scarcely placed a slate under the table, when Lankester took it from him, and showed that there was already handwriting on it. A suit at law was the consequence of this.

Charles Eldred,² of Clowne, succeeded in getting quite strange materializations. The fact was utterly astounding, since it was evident that he was not a professional medium.

At Clowne, in the presence of M. and Mme. Letort, at every séance "Arthur," the medium's brother, long since deceased, who was his ordinary adviser, was really materialized, and walked about from the room to an adjoining closet. Every evening he was amongst us for ten or fifteen minutes. He showed us both his arms uncovered, gave us a shake of hands, and asked us to touch his gorgeous white attire. He produced "two spirit-lights," luminous disks

circumstantial evidence; it asserts that the Milan séances were of value and illustrated to a most remarkable extent the theory that material can be brought by spirits.

¹See Hodgson, "Travail cité sur Davey," p. 204, and "La mort du médium Slade," *Annales des Sciences Psychiques*, 1905, p. 569.

²See "Une séance de matérialisation avec le médium Eldred en Angleterre," *Annales des Sciences Psychiques*, 1905, p. 558; and "Le démasquement du médium Eldred. *Ibid.*, 1906, p. 184; Mme. Ellen Letort et C. de Vesme, "Les fraudes des médiums. A propos du démasquement d'Eldred." *Ibid.*, p. 292. Photographies de spectres. *Echo du Merveilleux*, 1905, p. 362. "Séances de matérialisation." *Ibid.*, 1906, p. 73. "Les trucs de M. Eldred." *Ibid.*, p. 124. "A propos du médium Eldred." *Ibid.*, p. 147.

made of a material resembling alabaster, an obdurate substance of about the size of a dollar piece." Sometimes he would dematerialize himself and "would look as sinking through the wood flooring. Eight or nine spirits were materialized at each séance." Mme. Bosset identified her mother in one of them; in others M. Letort recognized his old nurse, his child, etc. Several photographs were taken.¹

With the same medium, at Nottingham, Rear Admiral W. Osborne Moore witnessed the materialization of two of his relatives, recently deceased, who had previously intended to appear unto him.

Charles Eldred turned into a professional medium, conducted by a manager, and on March 5, 1906, was abashed by Dr. Abraham Wallace. With the help of Mr. Brailey, a "clairvoyant psychometer," the chair on which Eldred worked, underwent a minute examination; they detected, in its back, a small keyhole, deeply inserted and hidden in the stuff. A suitable key was procured, the lock was opened, and it was possible to take a photograph of it, showing a hidden compartment, fifteen inches long and two inches wide. The small box being unlocked in a séance, all the requisites for impersonating spiritualistic shapes were found, namely: a head of marl, with a mask of flesh color; six fragments of splendid white China silk about thirteen meters long; two fragments of very nice black stuff, very likely intended for the would-be dematerializations; three beards of various aspects; two wigs, one white, the other gray; a kind of metal frame that could be stretched out in any direction, and which, hidden by a cloth, was probably used to represent the second "ghost;" a small electric lamp with four meters of wire, so constructed as to enable the medium to emit spiritualistic lights within the closet, even

¹One of them was published on the front page of the *Echo du Merveilleux*, Oct. 1, 1905.

when he was not in there; a flask emitting odors; and finally, pins, etc.

At the same time, a similar mischance befell Craddock,¹ who was another medium, renowned in England for his "materializing" powers.

Lieut.-Colonel Mark Mayhew had suspected the fraud from the first, before finding it out.² One or two "ghosts" came near Mr. Mayhew, pretending to be a relative of his, whom he never had had; a child came close to his wife, addressing her as "mother," though she never had had a child. At the same time, there were more ingenuous or confident bystanders. A lady looking at a "ghost," which was nearing her, exclaimed to her husband: "Look, here is your father." Her husband answered: "Yes, indeed," but soon correcting himself, added: "No, this is my mother."

In the final séance, announcement was made of the spirit of a lady who, not only was alive, but also was then present. At a certain moment, a shape having on its upper lip a well turned white mustache, came close to the colonel who took a strong hold of its arms.

The "ghost" made a fierce struggle, and failing to set itself free, carried away its aggressor to the closet. Mr. Mayhew, who knew that Mr. Carleton had a small electric lamp, asked him to light it, and so it was perceived that the would-be "ghost" was Mr. Craddock himself.

Mr. Mark Mayhew and Rear-Admiral Moore, who assisted at this séance were, nevertheless, and still are, strong believers in the reality of most of the doctrines of spiritism.³

¹See "Après Eldred, Craddock," *Annales des Sciences Psychiques*, 1906, p. 320; "Le Procès de Craddock." *Ibid.*, p. 448; "Découverte d'un autre fraudeur." *Echo du Merveilleux*, 1906, p. 125; "Le procès Craddock." *Ibid.*, p. 249.

²It was apparently for the third time that the medium was caught.

³I relate this simply to give the above mentioned evidence its whole value; the sources from which such facts are borrowed, are likewise

As a consequence Col. Mayhew brought an action against Craddock, before the Edgeware Police Court in London based on a law made in the time of George IV, that brands as a rogue and a vagabond, any one pretending to use certain subtle stratagems of divination, in order to raise up the spirits of deceased persons. On June 21, 1906, the Court sentenced Craddock to a fine of £10, or one month in prison. Moreover the prisoner was commanded to pay £5, 5, 0 for the expenses of the trial.

A propos of Craddock, Paul Mathiex¹ records the three following facts:

In 1894, Mrs. Williams, an American medium who had come to Paris, materialized a physician having thick whiskers, and also his daughter who was dressed in a white costume. Then, M. Leymarie, of the *Revue Spirite* made a sign, and while a bystander was seizing the manager, two others took hold of the "ghosts." At this moment, M. Leymarie was seen struggling with Mrs. Williams, who shouted wildly and made fierce efforts to escape. She had put on black clothes and stuck to her face a wig and super-added whiskers, so as to play the part of the physician's ghost. The young lady with her proved to be only a mask, from which was pending a long veil, held by Mrs. William's left hand, while with her right, she drew a rope that moved a luminous apparatus through which she obtained varying colored lights, while visions were going on.²

In the United States, a medium as famous as Mrs. Williams, Miss Cadwed, was "caught" under identical circumstances by reporters for the *World*.

proof of the sound morality and the perfect plaindealing of all those who are nowadays seriously interested in those matters.

¹Paul Mathiex, "Les faux médiums," *Echo du Merveilleux*, 1906, p. 249.

²See Dariex, "Le flagrant délit de la célèbre Mrs. Williams," *Annales des Sciences Psychiques*, 1894, p. 333.

Col. Albert de Rochas had a medium named Valentine, whose essential faculty was to emit mysterious lights. During a séance which had taken place in a dark room whilst lights were gushing and sweeping through the darkness, Col. de Rochas suddenly lit an electric lamp and thus detected Valentine shaking in all directions her feet which had been previously uncovered and impregnated with phosphorus.

The medium Ebstein, an American spiritualist, according to the *Daily Telegraph* of Nov. 14, 1905, was ready to raise up the spirits of the dead before a sympathetic circle in Berlin, in a well-known hotel. The bystanders were waiting in the utmost darkness, when an electric light was unexpectedly lit and everyone could see the material that was to be used for the experiment in a hamper painted with luminous color.

Mrs. Piper¹ is the medium whose revelations have enabled Hodgson to write his "Hints on another World," a record of which *Light* declares that, according to many, it is the most important ever derived from the investigations by the Society for Psychological Research. The absence of fraud has not been definitely verified in this case. Still, Podmore believes that there may be great presumptions of fraud. Dr. Bérillon, in Paris, has acted with a wise circumspection regarding Mrs. Piper. Maxwell wonders why Hodgson does not deal with Eusapia as he did with Mrs. Piper, whose errors and whose dealings with her "customers," have not separated him from her. Does he believe that there is no conscious or unconscious deceit in the celebrated American medium, and that Phinuit alone is to be held responsible for the errors and frauds?

¹See Marsa, "A propos des expériences de Mr. Hodgson avec Mrs. Piper," *Annales des Sciences Psychiques*, 1896, p. 212; A. Erny, "Mrs. Piper et ses expériences (opinions diverses)." *Ibid.*, 1899, p. 110; Maxwell, *loc. cit.*, p. 276.

Interesting particulars respecting Mrs. Piper will be found in "Le Miracle Moderne" by Jules Bois. He declares that she converted Richard Hodgson, the terror of mediums, to Spiritualism, and he makes him declare: "I am henceforth fully persuaded that such communications (with the entity and individuality of the dead), are actually existing in Mrs. Piper's trances."

One day she thought she had communication with Stainton Moses, "the Anglo-Saxon Allan Kardec," and with the spirits who were his advisers during his life as "Imperator," "Rector," and "Prudens." When alive, Stainton had told Myers—and Myers alone—the real names which, according to their own version, these persons, hidden under an assumed identity, had had during their earthly existence. But, unfortunately, Stainton Moses, the Imperator, the Rector, and the Prudens of Mrs. Piper, when questioned in America, while Myers was in England, boasted to be able to reveal those names. Not only were they unable to do so, but pretending to disclose them, they told lies, and gave names quite different.

I borrow again from Maxwell¹ the following instances of deceits by mediums.

In order to obtain physical phenomena (raps and movements without contact), Mrs. Sidgwick, her husband and some friends "had applied to Eglinton and Slade, and as regards direct handwriting on slates, to the Misses Wood and Fairlamb. Another medium, Haxby, had been engaged for materializations.

The Misses Wood and Fairlamb produced only very suspicious phenomena, to say nothing worse. As to Haxby, he made impudent frauds. Maxwell had an occasion to witness an experiment in materialization in Germany.

¹Maxwell, *loc. cit.*, p. 263.

His opinion is that the medium and the only vision he ever saw were identical. It is likely that Miss Fairlamb, Miss Wood, and another who was later a cause of lively controversy, "had been caught by various experimentalists in attitudes that allow one to mistrust their good faith."

Miller¹ has made quite remarkable experiments in San Francisco.

He wrote to A. de Rochas and requested him to come to California and scrutinize his experiments; his passage in first cabin to be paid there and back. He would be the guest of Baron and Baroness Zimmermann. At this period occurred the San Francisco disaster and a part of the works of art Miller used to sell were destroyed. In order to complete his stock, the medium went to Europe and arranged séances in London and Paris. In the latter city, Delanne and de Vesme were present at a suspicious séance, during which the medium's pockets were not searched; his hands were not held by a trustworthy experimentalist; the light was not full. De Vesme suspected some possible tricks, and Delanne asked Miller to prepare for a conclusive séance. At first Miller agreed to this offer, but later, he refused and sent back the money. "I do not want to be any longer suspected," said he. De Vesme remarked that so far was this from removing suspicions, that it could only make them occur to the minds of persons who had been most favorably imprest with regard to him. After Mr. Miller's strange decision, how could one not feel inclined to mistrust

¹ Van der Naillen, "Les expériences de matérialisation du médium Miller." Lettre à M. de Rochas. *Revue Spirite* and *Echo du Merveilleux*, 1905, p. 276; C. de Vesme, "Miller à Paris. Compte, Rendu d'une séance de matérialisation," *Annales des Sciences Psychiques*, 1906, p. 501; "Miller et la presse spirite française." *Ibid.*, p. 591. See also (in the third part, chapter X, iii, 83, β , γ) what I say concerning Miller's recent experiments, according to Gaston Méry and Sage. Miller, "Les nouveaux horizons de la science et de la pensée," 1906, p. 457.

also his shifts towards Col. de Rochas, who had spread his fame throughout Europe, and thought his powers worthy of a cross-examination by scientists especially appointed for that purpose?

Finally, Eusapia Palladino,¹ whose trances have been witnessed by first-grade scientists, has also been caught in the very act of fraud, namely, in Cambridge.²

In August, 1895, at Myer's house, the Society for Psychical Research had the mischance to witness fraud during twenty séances. Sidgwick and Hodgson insist on tricks by which one might counterfeit at least a part of the phenomena observed with Eusapia Palladino; the most important of those tricks is the substitution of hands which enables the medium to set free one of her hands believed by the investigators to be held still.³

In a report (October 11, 1895) to the General Convention of the Society, Sidgwick declared that the medium had used before, or attempted to use, such frauds in the Cambridge

¹See also what I write further concerning the experiments at the Villa Carmen (third part. B. Chapter X, iii, 84, b, γ , 3rd); about Zuccarini the medium (Chapter XI, ii, 88, a., β , γ , 5th) and about the Narbonne medium (iii, 91, b.).

²Respecting Eusapia's frauds see Xavier Dariex, "Ce qu'on doit penser des phénomènes médianiques d'Eusapia Palladino?" *Annales des Sciences Psychiques*, 1896, p. 65; Ochorowicz, question de la fraude dans les expériences avec Eusapia Palladino. *Ibid.*, p. 79; Maxwell, *loc. cit.*, p. 263, 269 sqq.; Albert de Rochas, "L'extériorisation de la Motricité," 4th ed., 1906, p. 201. "In the case of Eusapia, who is the medium the most thoroughly investigated," writes Camille Flammarion (*loc. cit.*, p. 262), "the fraud is unfortunately evident in more than one case." It is useless to say that fraud is not detected in all experiments. So I shall speak again about Eusapia Palladino (Part III, chapter XI. II, 88, a, β , 1st).

³In a test made in Paris, Dariex and Marcel Mangin have verified this fact. Besides, frauds of this kind have already been discust in 1892 by Torelli (Milan), by Charles Richet in 1893, and in 1894, at Warsaw, by Bronislas Reichman.

séances, which should consequently be suspected. Myers confirmed Sidgwick's appreciation; Lodge also admitted that there had been fraud in one of the séances he had witnessed. In this séance Eusapia gave only one of her hands to be held by two persons (control was made by the contact of one hand) while the other was free. All this led the Society for Psychical Research to deny the insertion in their "Proceedings" of an account of these experiments, and to decide that they would hereafter ignore what was done by Eusapia, because they "take no notice whatever of the deeds of persons using such unfair methods."

Such an appreciation was unjust. The decision was lacking in its scientific spirit. In fact, it would not be right to infer from those frauds of mediums (however numerous they may be), that a medium convicted of fraud in one instance, is always guilty of it.¹ It would be unfair to conclude that all mediums are cheats.

The only conclusive thing (and in itself this is very important) is that fraud will be frequently found in mediums, but it is sometimes very hard to detect. I imagine that nobody would deny this assertion made by Dariex: "All who have made many experiments, and managed such sensitive people as mediums, know that all mediums, or nearly all, are accustomed to cheat." Ochorowicz says: "It should not be forgotten that deceit is inseparable from a

¹Flammarion writes: "One may assert (*La Revue*, 1906, p. 29 and 329), that professional mediums are all defrauders, but they do not cheat always. I am in a position to declare that, for forty years, I have received visits from all the famous mediums, in my drawing-room of the Avenue de l'Observatoire, and nearly all of them have I caught in the very act of cheating. It does not imply that they are constantly cheating, and people asserting such a thing make a blunder. But, either consciously or unconsciously they carry with them an element of confusion which one should always beware of, and that places the experimentalist under circumstances utterly different from those required in a scientific survey."

mediumistic survey, just as simulation is obviously inseparable from hypnotism."

But, in order to maintain this assertion, we are bound to use the words fraud, deceit, or cheating in a broad (and somewhat inaccurate) sense. For example, we must acknowledge that there are unconscious frauds, for which the medium is not answerable. Here lies the Cambridge mistake. While the experiments made there utterly testify to cheating, they do not testify to Eusapia's responsibility; in consequence they are not a sufficient basis for disqualifying the medium when charged with cheating.

This fact, for instance, will illustrate Eusapia's irresponsibility. One day she requested Lodge, Myers and Ochorowicz to listen to raps originating within the table. They came readily to the conclusion that she was herself the author of the alleged raps, by using her boots. "When I hinted this," says Ochorowicz, "she drew back slightly, and denied it. 'It is queer, anyhow,' she said, 'something is pushing my foot towards the table.' She was so sure of the reality of the phenomenon that she persisted in asking me to fasten my foot and hers with a string. This being done, I felt her pulling up the string by twisting her feet; she twisted the string so as to be able to knock the table with her heel. All of us could perceive that save herself. I have seen mediums tapping walls with their fists, and who declared that a spirit was tapping. A law student, who was a medium of a lower class, gave himself a slap in the face, and was very much frightened. He was not constantly entranced, and was obstinately resolved upon making us believe that he had gotten an admonishment from the spirit of Xantippe, the wife of Socrates."

Such frauds are polygonal. I shall deal with their psychological structure in the second part.¹

¹Part II. Chapter IV.

Sometimes the medium may be led into deceit by the strength of his automatism segregated from himself during the trance. De Rochas would now and then warn Eusapia against an impending fraud.¹

A Swedish physician, Paul Bjerre, reports in his book, "The Karin case" that, in a séance, while raps were expected they failed to come. Karin, the medium, unable to keep his peace, stood up suddenly and in the presence of the bystanders, knocked on the flooring himself.

The fatigued attitude of people gathered around a table, for the purpose of making it turn, induces some of them to become unconscious cheats; likewise, the medium may be inclined to cheating in his trance.

This is why C. de Vesme has been able to declare the practise of mediumistic powers may be the occasion of serious moral dangers with regard to some individuals should they devote themselves to it under troublesome circumstances.

A medium's unconscious fraud is usually a foolish act. Concerning the account of Eldred's deceit, above referred to, Mme. Letort and C. de Vesme observe: "It seems that the chair seized in London, had been ordered for the very purpose of being sent to Mr. Ronald Brailey's house, where it was left by the medium for fifteen days, and thus abandoned to unfriendly examination, though he was perfectly aware of suspicion on the part of this gentleman and others."

The medium's responsibility appears void or attenuated, in many instances of fraud. But instances are recorded of mediums previously honest who leave off being so. This occurs when they become professional mediums. Then, they are taken advantage of by some manager, or a "Bar-

¹As Maxwell rightly observes, "experimentalists should help the medium to resist suggestion of fraud, and give him no chance to waste this strength which is likely to be changed into muscular movements. Such has been one of Mr. Hodgson's mistakes."

num." In this case, they are urged to be always successful. Every day they must fulfil the program posted everywhere, and when necessary, they may cheat. This has likely occurred in the case of mediums whose mediumistic life is really divided into two parts.

16. CONCLUSIONS. CAUTION TO BE OBSERVED.

In any case it is obvious that, owing to one cause or another, frauds are quite common in mediumistic experiments. "To make experiments with deceitful mediums is a hard task," says Charles Richet,¹ and the results are frail.

Let us imagine a skilful juggler operating in the dark, before people absolutely believing in the reality of his work. We might be able to register wonders far more astounding than those of spiritism. I do not think it necessary, as a consequence of this, to found here, as has been done in America, an "Antifakirs' Society,"² in order to abash defrauding mediums. Still, one should remember a few principles, which I will sum up as follows:

First. It is always necessary to beware strictly of mediums managed by a "Barnum." Hodgson is even so daring as to give this advice "especially intended for American spiritualists," that nearly all professional mediums "are a gang of vulgar rogues more or less closely associated with each other. Here and there will be found connected with them people that wish to become professional mediums, and that are, as a rule, not very trustworthy individuals." Sidgwick says that any test, made with such mediums, is to be prejudged, "and this opinion is right," declares Charles Richet. But, it is also possible to be of a dissimilar opinion.

¹Charles Richet, *Annales des Sciences Psychiques*, 1905, p. 36.

²In several States of America, defrauding mediums are called "Fakirs" by Spiritualists.

Second. As has been rightly observed by Maxwell,¹ "one should mistrust mediums who succeed in all their experiments, and obtain at once the results they had anticipated and foretold." Reversely, it is not to be taken as condemnatory when, now and then, a séance proves to be a failure.

Third. It is, if possible, desirable to work in the full light, and, should it be possible, to have within reach an apparatus producing light suddenly, at a moment unexpected by the medium. It has been repeatedly insisted upon that grievous dangers may befall a medium should some one grasp the "ghosts." We have seen that, owing to those spirit-grabbers,² cheats have sometimes been detected. Such a *modus operandi* will prove useful when one has sufficient cause for suspecting the medium's behaviour.

Fourth. It is wise to try the medium's suggestibility, or, in other words, to ascertain how easily, when entranced, he obeys external suggestions, that is, how readily one might induce him to commit fraud, unknown to himself.

Fifth. Lastly and above all, one must remember, in surveying such experiments, that a phenomenon, as C. de Vesme remarks, "does not assume a scientific mark just because it cannot be explained by means of a trick."

As a consequence, it is not sufficient to investigate as to whether a phenomenon has been produced by a fraud, or not. One must ask one's self if it has not occurred in such conditions as to render impossible the hypothesis of fraud.

In a word, as Ochorowicz says, knowledge of the existence of cheating of this kind should not hinder a survey—hardly yet started—of mediumistic phenomena, nor discourage a great number of those who are about to start one. Still, experience of frauds should lead to mighty circumspection, in discussing and appreciating the facts of occultism.

¹Maxwell, *loc. cit.*, p. 267.

²See, about the Spirit-grabbers, in the 3rd part (Chapter X, III, 84, b, γ, 2nd).

PART II

THE OCCULTISM OF YESTERDAY

CHAPTER III.—ANIMAL MAGNETISM AND HYPNOTISM.

CHAPTER IV.—UNCONSCIOUS AND INVOLUNTARY MOVEMENTS. TABLE-TURNING, EXPLORING PENDULUM, CONJURER'S WAND, "WILLING-GAME" WITH CONTACT.

CHAPTER V.—POLYGONAL SENSATIONS AND MEMORY; ERRONEOUS DIVINATIONS; POLYGONAL HALLUCINATIONS AND CRYSTAL-VISION; POLYGONAL REMINISCENCES AND MISJUDGMENTS.

CHAPTER VI.—POLYGONAL ASSOCIATION OF IDEAS AND POLYGONAL IMAGINATION. POLYGONAL ROMANCES OF MEDIUMS.

CHAPTER III

ANIMAL MAGNETISM AND HYPNOTISM

- I. 17. HISTORICAL ACCOUNT. Braid, Charcot, Liebeault and Bernheim.
- II. HYPNOTIC SLEEP AND THE CONDITION OF SUGGESTIBILITY.
 18. *Definition: hyper-polygonal disaggregation and polygonal malleableness.*
 19. *How to provoke hypnotic sleep and how to check it.*
- III. SUGGESTION.
 20. *Intrahypnotic suggestions:*
 - a. Motive.
 - b. Sensory.
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 - d. Modifying the individuality of the person.
 - e. Matters usually beyond the reach of volition.
 21. *Posthypnotic suggestions:*
 - a. Suggestions at waking time.
 - b. Suggestions to be fulfilled at a distant date.
 - c. Psychical conditions when coming due; and between the suggestion and becoming due.
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- IV. THE USE OF HYPNOTISM IN FORENSIC MEDICINE, THERAPEUTICS AND MORALS.
 22. *Hypnotism and suggestion before Justice.*
 - a. The hypnotized as victim and accuser.
 - b. The hypnotized as offender and accused.
 - c. The hypnotized as witness.
 23. *Hypnotism and suggestion from a therapeutical standpoint.*
 - a. Hypnotism and psychotherapy.—Higher and lower psychotherapy.
 - b. Modes of operating.—When is hypnotism indicated or not indicated.
 24. *Hypnotism and suggestion with reference to Morals.*
 - a. The immorality of non-medical hypnotism.
 - b. The Lawfulness (according to morals) of medical hypnotism.

I. HISTORICAL ACCOUNT

17. I dropt my historical account of animal magnetism at the time when (in 1840) it was solemnly condemned by the Académie de Médecine, and given by them a place as little important as the squaring of the circle, or perpetual motion. At this very time, however, Braid¹ came upon the stage and opened an epoch in which animal magnetism was disoeculted by science.²

Braid knew Mesmerism merely through books and newspapers. He believed it to be wholly a system of collusion or illusion, when on November 18, 1841, he was present at a lecture given by Lafontaine, a French medium. During the first séances, his prejudices were only strengthened. Six days later, however, his attention was attracted by the fact that a subject was unable to open his eyelids. Braid, detecting reality in this phenomenon, entered into an investigation of its physiological causes, and thought that it might be due to a continued fixed stare paralyzing the nervous centers of the eyes and their appendages, and destroying the equilibrium of the nervous system.

¹Braid has published in England a work entitled: "Neurypnology, or the Rationale of Nervous Sleep, considered in relation to Animal Magnetism," Illustrated by numerous cases of its successful application to the relief and cure of diseases (London and Edinburgh, 1843). A French translation of it has been issued in 1883, by Jules Simon: "Neurypnologie—Traité du Sommeil Nerveux ou Hypnotisme." Besides the work quoted above, this book contains an Appendix giving the summary of Braid's subsequent publications up to 1860. This appendix was then addrest to the French Académie des Sciences, together with a preface by Brown-Séquard. This very year, 1860, he suddenly died, struck down with apoplexy, aged 65, while engaged in preparing a new edition of his works.

²We will discuss further Boirac's opinion about it. Boirac is sticking to the term Animal Magnetism, but uses it with the meaning of psychical irradiation.

“With a view to proving this,” he says, “I requested Mr. Walker, a young gentleman present, to sit down and maintain a fixed stare at the top of a wine-bottle, placed so much above him, as to produce a considerable strain on his eyes and eyelids in order to enable him to maintain a steady view of the object. In three minutes, his eyelids closed, a gush of tears ran down his cheeks, his head drooped, his face was slightly convulsed, he gave a groan, and instantly fell into profound sleep, the respiration becoming slow, deep and sibilant. This experiment, not only proved what I had expected, but also tended to prove to my mind that I had the key to the solution of Mesmerism.”

Hypnotism was found, the more or less occult influence of magnetism being annihilated, owing to the results obtained with the neck of the bottle. Animal fluid or a magnetizer's will were no longer concerned. The whole action and interest was transferred to the person asleep. Lasègue¹ writes: “Braid's intervention has been authoritative, since, by removing the object he has thrown away anecdotes, driven back occult proverbs, and placed Magnetism within the range of objects easy for science to enter.”

After Braid, investigations became numerous. I have not to reckon them here. But, among the authors who have helped to make Hypnotism what it actually is, I must mention apart, on one side Charcot; on the other Liébeault and Bernheim.

Charcot has entered into the investigation of hypnotism in a scientific way; he has carefully analyzed the symptoms that enable us to detect fraud; through him and with him Animal Magnetism has been triumphantly acknowledged by the Institute from which it had been disdainfully ex-

¹Ch. Lasègue, “Le Braidisme,” *Revue des Deux Mondes*, October 15, 1881.

pelled thirty years earlier. Liébeault and Bernheim have shown the momentous part played by Suggestion in producing hypnosis and developing phenomena that happen before and after artificial sleep.

I need not insist any longer in order to sum up the condition of this question, which has now become a branch of neurobiology.¹

II. HYPNOTIC SLEEP AND THE CONDITION OF SUGGESTIBILITY

18. DEFINITION: HYPERPOLYGONAL DISAGGREGATION AND POLYGONAL MALLEABLENESS.

Let us assume that a person has been induced to sleep—it may be through any influence whatever. Hypnosis involves only one specific and invariable condition—the condition of suggestibility. The patient, when hypnotized, is by definition a person to whom suggestions could be made.

This being said, it is well known,² especially since Pierre Janet's researches,³ that psychical acts are divided into two groups: the former, voluntary and conscious, the latter, automatical and unconscious.⁴

¹See, "Hypnotisme et Suggestion," Bibliothèque internationale de psychologie expérimentale normale et pathologique, 2d ed., 1904.

²See, "Le Psychisme inférieur," *Etude de physiopathologie des centres psychiques*. Bibliothèque de philosophie expérimentale, 1906; also, "L'introduction physiologique à l'étude de la philosophie," même Bibliothèque, 1908.

³Pierre Janet, "L'automatisme psychologique," "Essai de psychologie expérimentale sur les formes inférieures de l'activité humaine." Thèse de doctorat ès lettres, Paris, 1889, 2d, 3d and 4th eds., 1903. Bibliothèque de philosophie contemporaine.

⁴"Cryptosychy," says Boirac, "is any phenomenon in which a psychical and intelligent act appears to be made manifest, although the individual in whom it is occurring is to no extent conscious of it."

With those two heads of psychical acts, two groups of psychical centers and neurones, both located in the cerebral mind, are in correspondence: the upper centers, (O, in my schema, prefrontal lobe), and the lower centers (polygonal centers of my schema, zones of association of Flechsig). In the physiological state, the whole psychism is taking part in the general management of ordinary life. Both orders of psychical centers mingle and superpose their action. But, under certain circumstances, both orders of psychism are separated; they are mingled no more and leave off superposing their action. For survey and investigation, absent-mindedness and natural sleep are very simple examples of such physiological hyperpolygonal disaggregations.

Hypnotic sleep or provoked sleep, is an extraphysiological condition of hyperpolygonal disaggregation. The upper centers of the person asleep are annihilated, are sleeping, and do not interfere with active life. The polygon only keeps on being active. Such is the first feature of hypnosis.

In the next place, the polygon of the subject asleep, being separated in this manner from its own center O, is absolutely malleable, and readily biased by the center O of another person, chiefly by that of the magnetizer. Suggestion is precisely the influence exerted by the O of the magnetizer over the disaggregated polygon of the magnetized. Thus, the sense of the word "suggestion" remains narrow, strict and scientifically limited. I do not use this word as Bernheim does, as a substitute for the influence of one psychism over another; in my opinion, it is distinct from advice, teaching or preaching, which do not supply to a disaggregated polygon, but to the whole of a psychism, complete and one.¹

¹"In its new meaning," says Boirac, "the word suggestion implies the idea of an involuntary, or even automatic, obedience of a person to the

Thus, hypnosis, or the condition of suggestibility, is well established. It is a polygon emancipated from its own center O, and obeying an external center O.

19. HOW TO PROVOKE HYPNOTIC SLEEP AND HOW TO CHECK IT.

Any one is able to hypnotize, but not to be hypnotized. People liable to hypnotism, are nervous and sensitive; equally liable are those trained for it. All modes of hypnotizing rely upon the fixt stare (or a bright object), and suggestion. Both elements are usually combined; a fixt stare is maintained on the person intended for sleep and such person is strongly urged to sleep. There are, on some people's bodies "hypnogeneous zones," whose pressure leads to sleep; they are often the consequence of a suggestion, either actual or previous.

Ordinary sleep may be altered into hypnosis by suggestions whispered into the sleeper's ear. When making a suggestion to a subject awake, one should first cause in him, through suggestion, a state of semi-hypnotic sleep, which is always a condition of hyperpolygonal disaggregation, and of obedience to the hypnotic center.

A subject may be induced to sleep through autosuggestion, and generally this occurs when one is unconsciously remembering a previous hypnogeneous suggestion, or under the influence of a sudden disorder of the nervous system.

It is usual to blow on the eyes so as to check hypnosis.

idea suggested; and what is most remarkable in this phenomenon is exactly that it is impossible for this person to do or not to believe what has been said. Thence, the term 'hypotaxy,' *i.e.* subordination, subjection, applied by Durand de Gros, to the condition of the nervous system that renders possible this necessary obedience of the subject to suggestion."

But suggestion is the best way. One bids the patient wake up, either at once, or by connecting the idea of waking with some indication to be given soon afterwards.

III. SUGGESTION

20. INTRAHYPNOTIC SUGGESTIONS.

I divide these into five groups: *a.* motor; *b.* sensory; *c.* psychical and actual; *d.* modifying personality; *e.* matters commonly out of the reach of volition.

a. Motor Suggestions.

I command the subject asleep to lift up his arm. He does so; to walk, and he walks; to assume a funny attitude, to kneel down, to dance, and he obeys without minding people around him and in his presence, when well possessed of his centre O, he would never commit such deeds. This is verbal suggestion through hearing. This group contains the acts of imitation (Heidenbain), of movements "heard," and the facts of *écholalia* (Berger).

Should suggestion be visual, one obtains the movements that are seen and then imitated; the subject slavishly imitates any deed or speech of the magnetizer; he opens his mouth and puts out his tongue, when one lifts up his right arm, the other (opposite him) lifts up the left one (this is the specular imitation of Despine, the fascination of Brémaud). In these experiments, the gaze of the patient is seized and controlled by gestures.

Suggestion may be induced through the muscular system (kinesthesia); the continuation of a movement started already (Charles Richet), or of an attitude (the suggestive catalepsy of Bernheim) is provoked. The motor suggestion may be negative, i. e., may lead to the absence or impossibility of movement, even to paralysis.

b. Sensory Suggestions.

In each sense, mere sensations, or association of sensations, may be caused by suggestion. Thus, with regard to sight, a color or a portrait; with regard to hearing, a sound, a tune or to abusive language; with regard to taste and smelling, the taste of sugar (by means of salt), the taste of a peach (by means of a raw potato); the smell of a rose through a stick); to sensibility at large, an itching or a burn.

Negative suggestions may affect either one sense, or sensibility at large; they may be complete, or partial. In the latter case, the sight of certain colors or objects is suppressed; or the faculty of perceiving through certain senses is suspended; or anesthesia of a limb, or a fragment of limb is procured. Should those suggestions be systematized, a person present may be made to disappear. This is negative *electivity*. Hallucinations suggested in this way have a physiological action as if the object suggested were really existing (Binet and Féré). When anesthesia is suggested, the sensory impression which is not perceived by O, finds very often its way to the polygon, and can be used by the subject in his automatist life. Thus a female patient anesthetized in both her hands might quite naturally try to dress her hair, by sinking long hairpins in her neck below her head; or, having closed her eyes, might button and unbutton her coat. Likewise a patient to whom suggestion has been made not to see red paint would not perceive it, but would substitute for it other colors in Newton's disk, which while rotating he sees white as anyone does.

However, in the case of a patient whose field of vision is narrowed, luminous impressions find their way up to dark regions of the polygon. A patient of Janet, would fall as in a sudden attack, as soon as he saw a small blaze, and besides would have an appreciable narrowing of his field of

vision. Should a match previously lit be placed in the dark spot of his field of vision, he would be seized with convulsions and cry "fire!"

c. Psychological and Actual Suggestions.

Verbal suggestion is the easiest. Bernheim said to a housewife who was a patient in his ward: "Now, you are healed; get up and do your work." She got up at once, put on her dress, looked for a chair, climbed upon the sill of the window, which she opened, dipped her hand into the pitcher containing the contents which she imagined to be water for domestic purposes. She then undertook to wash the windows on both sides. She put her bed in order, and swept the floor of the room with a broom someone had brought for her.

Acts may be complex, and may demonstrate plainly the self activity of the polygon disaggregated during hypnosis. Such complex suggestions may be obtained through sight (by seizing the subject's stare); through tactile or general sensibility, or through the kinesthetic sense.

d. Modifying the Individuality of the Person.

Without entering into a philosophical discussion of the idea of personality, it is possible to suggest a new personality to the disaggregated polygon of the hypnotized, and owing to polygonal activity and to his own only resources, the subject may be thinking and acting in a new personality.

A suggestion is made to a subject while asleep, that he is a priest, or a general, a peasant or a painter. Then, he is thinking and speaking in his own opinion, as a priest, or a general, a peasant or a painter, ought to.

By suggestion, a subject has been placed back in his own personality, ten or fifteen years. His polygon is then living

and expressing the life he remembers from that time, long passed though it be.

Some patients undergo what I may term "a dividing into two," (*dédoublement*) of their personality, i. e., they live, according to the moment, either in their own personality, or in an abnormal and polygonal personality. Felida, the curious medium of Azam, was a famous instance of this phenomenon as described in "Joseph Balsamo," by Alexandre Dumas. Lorenza Feliciani lives in the former, she adores Balsamo, while she hates him in the latter.

In somnambulism, either spontaneous or provoked, the patient likewise assumes, in his attack, a polygonal personality quite different from his own physiological individuality. In ambulatory automatism, it is through his polygon that a patient falls asleep in Paris and wakes up at Brest, having traveled and eaten unconsciously and involuntarily.¹

e. Matters Usually Beyond the Reach of Volition.

Prima facie, these seem to be irrational, impossible and paradoxical, but they are quite true. A sick person may be purged through suggestion. By means of suggestion, an influence may be exerted over menstruation and other hemorrhages. Blisters and vesication have been procured by suggestion. C.S.!

21. POSTHYPNOTIC SUGGESTIONS.

The so-called posthypnotic suggestions are posthypnotic only as to their fulfilment. Concerning suggestion itself, they are intrahypnotic. Suggestion is always made during hypnosis. All the suggestions quoted above may be taken with reference to waking time. In this case, the subject awakes at the appointed moment. He has forgotten the

¹See further the paragraph dealing with alterations undergone by the personality of mediums entranced (same part, chapter vi, p. 50).

hypnosis and the orders given during the same, but still he faithfully fulfils them. This is a most remarkable example of polygonal or unconscious memory.

The condition in which the patient is, when fulfilling a suggestion, is no longer hypnosis; nor is it the normal condition of waking. It is a condition of semi-hypnosis (Wundt), a condition of hyperpolygonal disaggregation, sufficient to arouse polygonal remembrance and keep up the subject's attention, and at the same time regulate his deportment. This does not occur in ordinary circumstances. In fact, the patient's center O exerts neither censure, nor inhibition over the acts of this period; he unwillingly obeys commands and should he be conscious of them he would be quite astounded to perceive that he is acting in this way. He does not realize the course of his behavior. However, this is not peremptory, and it is not impossible for a subject to resist suggestion,—at least in certain circumstances. Opposition of this kind may possibly be made manifest during hypnosis at the moment when suggestion is exerted. Then it is merely a polygonal resistance. The polygon is resisting with its hereditary or acquired principles, in morals, religion, etc. Such opposition may also happen at waking time, at the very instant of fulfilling a suggestion. In such a case, the polygon is not alone resisting; O disaggregated, but not absent, may interfere in this resistance should the nature of the commands given too strongly hurt its principles or belief.

b. Suggestions to be Fulfilled at a Distant Date.

During nervous sleep, suggestions to be fulfilled at a distant date may be made. With one of my patients, the two longest that occurred have been—the former in 42 days (September 26 to November 6), the latter in 43 days (January 18 to March 1). But these figures have been very much

surpassed. Bernheim quotes a case of 63 days (August 2 to October 3); Beaunis, another of 172 days, and Liégeois a more curious one which lasted for one year.

c. Psychological Condition when Becoming Due, between the suggestion and Becoming Due.

When the moment of becoming due has arrived the patient spontaneously undergoes a condition of partial hypnosis, analogous to the condition I have already mentioned concerning suggestions to be fulfilled at waking time, and the command is automatically complied with by the polygon alone in the presence of O which does not interfere, but often witnesses the acts, and is quite wondering at them, since it does not know their causes. The condition in which the subject is placed between suggestion and its becoming due is more whimsical to observe. He may be awake and not remember at all the order given, though he will faithfully comply with it when due. In fact, the order has been given to his polygon disaggregated by hypnosis, and has been stored there within memory. At waking, such remembrances are latent. But, in any condition of hyperpolygonal disaggregation, they appear again; during sleep, they very likely occur to the patient's mind, and by this keep up his memory.

Such polygonal marks are common in ordinary life. Not only do we often wake up at the time when we desire so to do, but we know without pondering it through O every time, what we have decided to do at a given day of the week, or at a certain date, and we do it automatically, through our polygon. We set out for the marketplace, or the fair; we go to a lecture at a certain given day; people abstain from meat, go to church or chapel on other appointed days. The coming due of a certain fixed date or hour arouses a corresponding polygonal remembrance.

The sight of the calendar, by a man, even one absent of mind, will keep up within his polygonal memory the remembrance of a suggestion to be fulfilled and on the very day, the sight of a clock, or a watch, will remind him always unconsciously of the act he must perform. This is what Wundt calls rightly "mechanical association."

d. Suggestions Affecting Memory.

These are psychical, and always posthypnotic, as to their fulfilment. The remembrance of hypnosis at the time of waking, most commonly depends on suggestions made during sleep. If suggested the loss of memory may be partial, and affect only certain points of hypnosis. On the contrary should there be preserved at waking only the remembrance of nervous sleep as suggested, the patient might even be led to remember impressions which, because of suggestion, he did not perceive.

Owing to suggestion, he will remember, when awake, an object he had not seen during sleep; this proves that his impression which had not been perceived had been all the time stored within a part of his lower psychical centers. One may also, through suggestion, pervert a patient's memory, and this is momentous in forensic medicine.

IV. THE USE OF HYPNOTISM IN FORENSIC MEDICINE, THERAPEUTICS AND MORALS

I only mention this chapter here, having elsewhere developed it.

22. HYPNOTISM AND SUGGESTION BEFORE JUSTICE.

a. The Hypnotized as Victim and Accuser.

There is a series of criminal or felonious deeds perpetrated during hypnosis, or owing to it, on patients while asleep. On the other hand any charge brought by a person

liable to hypnotism, is suspicious and should be carefully investigated.

b. The Hypnotized as an Offender and an Accused.

At such times his responsibility is palliated, or annihilated, and should be transferred to the hypnotist.¹

c. The hypnotized may also be a witness, and like his accuser, his evidence should be strictly cross-examined before being accepted.

23. HYPNOTISM AND SUGGESTION FROM A THERAPEUTICAL STANDPOINT.

There are two branches in psychotherapy: lower psychotherapy (therapeutical hypnotism), and upper psychotherapy (persuasion, etc.). Each of these methods involves its modes of operating, its indications and contraindications, and its technics.

24. HYPNOTISM AND SUGGESTION IN MORALS.

Non-medical hypnotism is a danger, and should be regulated. Medical hypnotism often proves to be useful, but should be cautiously and scientifically exerted.

This chapter, referring as it does to matters very well known to-day, and discusst everywhere requires little attention. But I have thought it good and instructive to point out how important is this question, which has now become scientific, altho it belongs to the occultism of yesterday. What a loss it would have been for the science of man, for human neurobiology, had the scientists of the second-half of the last century not overlooked the condemnation of this subject by the Académie, and had they really placed occultism, far from their investigations and care, within the same category as the squaring of the circle, or perpetual motion.

¹See, "The Semi-Insane and the Semi-Responsible," and "La Responsabilité des Criminels," 1908.

CHAPTER IV

INVOLUNTARY AND UNCONSCIOUS MOTIONS: TABLE-TURNING, THE EXPLORING PENDULUM, THE CONJURER'S WAND, "WILLING-GAME" BY CONTACT

- I. THE MOTOR FUNCTION OF THE POLYGON: UNCONSCIOUS AND INVOLUNTARY MOVEMENTS.
 25. *Historical account.*
 26. *Distraction, absent-mindedness, somnambulism, ambulatory automatism and hypnosis.*
 27. *The reciprocal influence of ideas and movements.*
- II. TABLE-TURNING.
 28. *The fact verified.*
 29. *Explanation of the fact.*
 30. *Psychological analysis of experiments.*
 31. *Practical requirements for success.*
 32. *The unequal aptitudes of various subjects.*
- III. 33. THE EXPLORING PENDULUM.
- IV. 34. THE CONJURER'S WAND, OR DIVINING ROD.
- V. 35. "WILLING-GAME" BY CONTACT.

I. THE MOTOR FUNCTIONS OF THE POLYGON: UNCONSCIOUS AND INVOLUNTARY MOVEMENTS

25. HISTORICAL ACCOUNT.

On May 13, 1853, during the height of the fashion of table-turning, the *Journal des Débats* gave out a letter from Chevreul to Ampère, which had been issued twenty years earlier by the *Revue des Deux Mondes*.¹ It referred to facts which occurred about 1813.

¹E. Chevreul, "Lettre à M. Ampère sur certaines classes de mouvements musculaires," *Revue des Deux Mondes*, May 1, 1833.

About 1813, the attention of the world for some time had been engrossed in the exploring pendulum which I shall speak of further.¹

Chevreur, after experiments, inferred that "the thought movements in order to perform something may start our muscles, without our being either willing to produce or conscious of such movements." There lies the whole doctrine of involuntary and unconscious movements, instituted by Chevreul in 1833, and published anew in 1853.²

In the same year, 1853, Arago spoke likewise at the Paris Académie des Sciences and so did Faraday at the Royal Society in London. Then followed Babinet's work in the *Revue des Deux Mondes*, and those of the Abbé Moigno in "Cosmos."

A pamphlet, found by Pierre Janet, in the bookstalls of the quays of the Seine in Paris, was issued in 1855, under this title: "Second letter of Gros Jean to his Bishop Concerning Speaking Tables, Obsessions and other Deviltries." The author perfectly indicates how the connecting idea of volition and the Ego, is broken by sleep; he then points out in table-turning, the more or less complete, and more or less prolonged suppression of the action of the will over the organism, sensibility and intelligence that still preserve their activity. He makes an analysis of the psychism of the person who makes the table turn, receives a question and answers it without any interference on the part of the free and conscious will. Since Pierre Janet's works, the subject has really entered on actual scientific stage.

¹See, in this chapter, III, 32.

²In 1854, Chevreul published a book: "De la baguette divinatoire, du pendule 'dit exploreur,' et des tables tournantes," an important critique of which has been made by Maxwell, *Annales des Sciences Psychiques*, 1906, pp. 276, 337.

26. DISTRACTION, ABSENT-MINDEDNESS, SOMNAMBULISM, AMBULATORY AUTOMATISM AND HYPNOSIS.

When Archimedes got out of his bath, and ran over the city, shouting "Eureka," all the movements that were made by him in order to preserve his equilibrium were involuntary and unconscious. When Xavier de Maistre decided to go to the Court of Versailles, and found himself at the door of Mme. de Haut-Castel; when he put his stockings on the wrong way, and when, had M. Toanetti not warned him, he would have gone out without his sword, he was acting involuntarily and unconsciously. Similar things occur to everyone of us in normal life when in the condition of absent-mindedness. When speaking or thinking about something else, we walk the streets. We keep away from hindrances, from passersby and from motor cars. Should there be any step, or a gutter, to get over, we mind it. Should rain be pouring down, we open skilfully our umbrella and hold it against the wind and rain. We avoid the umbrellas of passersby. Should we meet with a lady, we get aside on the sidewalk, and, if necessary, bow to her, etc. All those actions are not elementary reflex actions, analogous to the lifting of the leg by percussion of the sinew of the kneecap. They are coordinate, regulated psychological actions, though involuntary and unconscious.¹

The hyperpolygonal disaggregations may be less complete, and consequently, in this case, are not so utterly involuntary and unconscious, but they are still automatic and polygonal to a more or less extent. Such are actions of habit, instinct and passion through a gregarious impulse.

In natural sleep many people talk, shout, move and sit up on their beds. Those are involuntary and unconscious movements. But they are more perceivable and coor-

¹Cryptoid phenomena of Boirac.

dinate in somnambulism. Lady Macbeth, in Shakespeare's famous scene, dresses herself in clever manner, writes correctly and walks without stumbling though coming across people whom she does not see. As a physician says, the somnambulist is enjoying the privileges of sleep as if he were awake. From a certain point of view he is acting better than if awake. He can walk over a roof or cornices without any giddiness, since he has no consciousness of danger. He keeps an instinctive and automatic equilibrium far superior to the intelligent and conscious equilibrium preserved when awake.

Instances given of ambulatory automatism are also strange. People are met with who not only walk in the streets without coming across hindrances or arousing anyone's attention, but who ride in a stage or a railway car in a regular manner after having procured a ticket at the office. They also eat during the journey. All this is done unconsciously and involuntarily.

In the preceding chapter, I have dealt with intrahypnotic and posthypnotic suggestions. All movements (and they are sometimes complex and numerous when performed by the subject in hypnosis, either total or partial), are involuntary and unconscious.

Therefore an experimental demonstration is acquired. There are, in physiology and physiopathology—i. e. in human neurobiology apart from voluntary and conscious movements (that have been known), involuntary and unconscious movements that have been well defined and analyzed since Pierre Janet's works were issued.

27. THE RECIPROCAL INFLUENCE OF IDEAS AND MOVEMENTS.

Such involuntary and unconscious, or automatical movements, are psychological like the others; their starting point is

in the neurones of the cortex, like the others. But this point lies in the neurones of the lower psychism instead of being placed in the neurones of center O. They are liable to the same principles as any other movements.

One of those principles will prove quite useful when regarding our actual survey; it is the principle of the reciprocal relations of movements to ideas. We are used to seeing an idea precede and cause movements. This is quite right. But, according to their constitution, there is in various degrees an appreciable inclination in certain subjects to manifest their ideas by means of movements or acts. In reference to mediums I shall discuss again this proposition which I merely mention here as a physiological principle. But an inverse relation may exist between an idea and an act, i. e. an action may precede and provoke the idea.

Thus, ideas of anger or prayer are caused in the polygon of a subject in hypnosis by giving his limbs the usual attitude express by such psychical conditions. With some patients who are seized with an organic lesion of the brain, ideas of sadness may be caused by a fit of tears.¹

The matter is well settled, apart from hypnosis and nervous pathology, as has been established by the famous passage from Dugald Stewart, quoted by Binet and Féré: "In the same manner as any emotion of the soul may arouse a sensitive feeling in the body, likewise, when we give a violent expression to our countenance together with suitable gestures, we feel to some extent the emotion responsive to the artificial emotion given to our gestures. Mr. Burke declares that he has often felt the passion of anger aroused in him when he counterfeited the external symptoms of that passion. It is asserted, as Mr. Burke observes a little

¹*Cf.* my lecture on "Ceux qui sont tristes parce qu'ils Pleurent, et Ceux qui Pleurent Parce qu'ils sont Tristes," *Province Médicale*, 1905, No. 2.

further on, that when Campanella, a great philosopher and physiognomist, wished to know what was occurring in the mind of another person, he used to do his best to counterfeit his actual attitude and countenance, while he was at the same time concentrating his attention on his own condition." St. Francis of Sales has said that "in barren moments it is sometimes convenient to stimulate one's heart by some attitude or movement of external devoutness." Georges Dumas¹ adds: "Has it not been repeatedly said by modern psychologists that when expressing a feeling, one is already partially experiencing it?"

This principle of the reciprocal relation of movements to ideas applies to the activity of the lower psychism, as well as to the activity of O. The knowledge which has been scientifically settled nowadays of these involuntary and unconscious movements and of their laws, has enabled us to render scientific a part of occultism which I am going to discuss.

II. TABLE-TURNING

28. THE FACT VERIFIED.

One should at first convince one's self that in certain cases tables are really turned. Around the table are people of absolute good faith whose hands are placed upon it, i. e. people who are not voluntarily pushing, and so fail to perceive that they are involuntarily pushing it. The time has passed when it was right to assert that there was always delusion or imposture in table-turning. I myself made, long ago, very strict experiments with several of my colleagues in a faculty laboratory, and may declare that nobody present was voluntarily and consciously pushing the

¹Georges Dumas, "Comment Aiment les Mystiques Chrétiens," *Revue des Deux Mondes*, September 15, 1906, p. 319.

table, although it was turning, and sometimes with an extreme speed. We also made hats and plates turn. I remember the case of a skeptical young lady to whom I related this. She thereupon held her hands in position upon a plate (she alone and without being held fast). Soon afterward she was very much frightened on finding that the plate was turning rapidly. We removed towards a wall, or a corner of the room, a table on coasters. We caused it to lift up a leg, give forth raps, and so answer our questions in spiritualistic language. Therefore, the table was turning without any juggling or tricks. None among the bystanders was believing or feeling that he pushed. And still, one was pushing, but unconsciously and involuntarily.

29. EXPLANATIONS OF THE FACT.

In a book from which I have already quoted, Chevreul¹ declares that his own experiment proved that an unconscious muscular action may explain movements of tables that are turning, knocking or speaking. "As a consequence," he says, "the power to make a table knock with one leg or another being once acquired, together with a belief in the intelligence of this table, I can understand how a question asked of the table, will arouse in the operating person, unknown to himself a thought whose consequence is a muscular movement that makes one of the legs of the table knock, according to the answer which this person deems the most proper. It seems that Faraday was the first experimentalist who ever contrived to show acts done by the hands of operators. Between each hand and the table, he placed two very smooth pasteboard disks connected by means of a partly hardened paste. To the lower disk (the one next to the table) is fixed a piece of sandpaper.

¹ See Maxwell, "Travail Cité des *Annales*," p. 351.

After the rotation of the table it was found that the upper disk had moved on the lower one in the direction of the rotation of the table. Thus the impulsion had obviously originated in the hands. The lower disk would have moved more than the upper one had the impulsion come from the table.

At another time he placed mica between the hands and the table. When the mica was sticking fast to the table, the table was turning; in case the mica was not adhering to it, the table stood motionless.

There is another experiment to be described. A disk having been placed between the hand and the table, was fixed to the lower part of a spindle, whose longer part indicated and amplified the smallest movements of the disk. Previous to the rotation of the table, the spindle revealed movements in the disk.

At the same time (1854) Strombo of Athens, made the following experiments: a very unsteady layer of talc was spread over a table; the fingers of the experimentalists when gliding on the table failed to put it in motion. Therefore, the hands were moving. But as Pierre Janet observes, with de Mirville, it was perhaps unnecessary to employ so many instruments in order to show us that the hand of the medium was moving. We suspected it somehow. The best mediums are those who need no tables, and hold their pencils themselves, so that everyone is able to see the movement of their hands. But we should explain how this movement may be involuntary and unconscious, although it is intelligent."

We have thus, in our discussion, well-established the existence of involuntary and unconscious movements. It seems to me that it has been worth while to verify the scientific reality of these movements. The matter is itself quite interesting, and fifty years ago it did violence to many

ideas that were prevalent. It can be understood how, previous to those explanations, such table movements, were able to stimulate the imagination, readily arouse an idea of divination or witchcraft, and become temptations to jugglers and conjurers.

30. PSYCHOLOGICAL ANALYSIS OF EXPERIMENTS.

We should investigate a little more closely the psychical phenomena in those experiments. A certain number of persons, all equals, gather around a table. Their hands make a chain after the familiar way. The center O of all the bystanders is very much occupied and makes no trifling possible. No one is talking. This is important. In each of the bystanders O puts its polygon in expectant attention, i. e. the séance which has begun in a free and voluntary manner, is to go on polygonally; O has presided over its management and later on will witness the results if any. But for the present it is not concerned in managing the experiments or censuring them. It is abstracted. The polygon alone is to superintend the continuation of the experiment.

After a period which at times is very short, an involuntary and unconscious movement is made by one of the polygons (unknown to O). One of the experimentalists, being more nervous than the others, and attracted by the idea of a rotation of the table (the only idea formed upon the polygon and preserved within it by O), is involuntarily and unconsciously pushing. In consequence, all the other polygons, or at least a certain number of them, stimulated by the beginning of movements in the table, are pushing also, and in the same direction, but always unconsciously and involuntarily, with a strength that keeps on increasing.

At this moment (this is the third degree), O is astounded at seeing the table turn, since it does not realize, even after-

wards that its disaggregated polygon is the agent of that queer phenomenon and the real motor of the table.

In short, I may say that the phenomenon consists of two elements: *First*, disaggregation of the polygon, which being stimulated by O but no longer connected by it, is acting through its own activity. Disaggregation is complete, especially as to the organs of recurrence—i. e. the organs which, when permeable make O conscious of the polygonal activity. *Second*, spontaneous movements, unconscious involuntary movements of the polygon; movements that lead to the moving of the table which O verifies, although it is not conscious of its mode of operating.

Thus it may be perceived that hyperpolygonal disaggregation is not all that there is in the phenomenon. Hyperpolygonal disaggregation is occurring in many different conditions. Such different conditions are distinguishable owing to the second concomitant element. The second element here consists of those little minute movements which are superposed, and finally cause appreciable results, although they are unconscious and involuntary; i. e. O having placed its polygon in the condition required, is no more concerned in the matter, and waits for the results, after having broken the chain by which it is connected with the polygon.¹

31. PRACTICAL REQUIREMENTS FOR SUCCESS.

One may readily infer that certain conditions for the success of experiments are necessarily required. Every one must give not only plaindealing, but also be very much concerned and attentive. Should an O in any way whatever be skeptical, or make fun or lead astray the attention of others,

¹See also on this matter, Th. Flournoy, "Note sur une communication Typtologique"; and de Luzemberger, "A propos des Communications Typtologiques," *Journal de Psychologie Normale et Pathologique*, 1905, t. II, No. 6, p. 481.

the polygons will be no longer in that special condition of expectant attention which cannot be dispensed with as far as regards the production of the initial movement and the subsequent production of any consecutive movements.

The code settled upon by famous experimentalists with table-turning, such as Agénor de Gasparin,¹ is quite curious. For example, we are told that in order to manage the table in strict order, one should be confident. Again it is said: "Bring here your whole intelligence and attention; but do not come with a mind of doubt, or analysis, or of malevolent suspicion respecting things or persons. You would be overpowered, and at the same time you would paralyze the others. In case the tables meet with disfavor or nervous preoccupation, they will pout. Above all there must be no drawing-room experiments. Serious success is impossible in them. Amidst absent-mindedness, babbling or fun, operators obviously waste their fluid power. "Bystanders should not interfere with the matter; nor make any observations aloud while it is going on. Operators whose fluid power has been tested are needed. One of the experimentalists should manage the proceedings, and he alone should give the necessary signals or commands. If everyone interferes, nothing will come of it. One should unite and concentrate one's thoughts; this is an indispensable condition of success. Should there be a number to be guessed, he who knows it, must strongly think about it. Others have nothing to do, except to forget the table."

Here may well be found the distinction between the polygons that are to provoke the initial movement, and the polygons that should passively comply with the movement started.

¹Comte Agénor de Gasparin, "Des tables tournantes, du surnaturel en général et des esprits," 2d ed., 1885, t. I, p. 83.

32. UNEQUAL APTITUDES OF VARIOUS SUBJECTS.

In order to simplify a psychological analysis of the experiment, I have assumed that all operators around a table are equal. They must at least be supposed to be so at the beginning of the experiments. But after a few attempts it soon becomes evident that if there are persons who hinder table-turning and make séances fail; there are on the contrary others who make them succeed more readily and more quickly than their neighbors do.

A polygon starts the movement, as I have said; the others only following it. Therefore, one may perceive a difference between polygons in this circle of would-be equal individuals. It would formerly have been asserted that subjects had not an equal amount of fluid or magnetic power. We say nowadays that there are polygons more or less inclined to be put into action. Here the medium whom we may have already seen peeping in appears again.¹

For the present I only verify the fact that makes an impression on any one taking interest in experiments of this kind. All are not equally qualified for making tables turn. One might find in a circle persons whose presence is a token of quick and complete success; they are minor mediums who are more readily active than others and who are more easily stimulating to their neighbors. Subjects are frequently met with who find resources in themselves and act alone; these are real mediums.

III. THE EXPLORING PENDULUM

33. The exploring pendulum (Gerboin, Chevreul),² consists of a heavy article hanging upon a flexible piece of thread. It is an instrument used at all times for divination.

¹Chapter VI (and not IV) of this same 2nd part.

² See Maxwell, work quoted in the *Annales*, p. 283.

The thread is held, with two fingers, hanging over certain substances, and though the arm be motionless, the pendulum oscillates. The experiment is easily made by suspending a button or a ring to a thread; the thread is fixed to your thumb while the button is pending in a glass. You concentrate your attention and the button is seen to be knocking the glass.¹

The early experimenters and some among their modern followers used a ring in the middle of a circle on which were inscribed the letters of the alphabet. The ring was seen to be successively knocking various letters that formed words. In the eighteenth century and in the beginning of the nineteenth, it was asserted that the ring moved in different ways when held over certain substances; that its movement stopt when a screen was introduced between it and the substance examined. Some experimentalists believed they found the cause of this movement of the ring in an influence of the substance examined. Chevreul made various experiments in order to scrutinize this fact very closely. He saw at first the phenomenon occurring over water, or a bulk of metal, or a living animal. Later he succeeded with a basin filled with mercury, then with an anvil, and different animals. On the contrary, over glass or resin oscillations were less frequent and they stopt at last. Then Chevreul entered into a closer examination and leaned his arm more heavily upon the stand. The movement would diminish and cease while his fingers were leaning to whatever might be the substance placed underneath. Then he blindfolded himself and made the experiment anew. In this case the different powers of the various substances exerted no more influence over the making or the stopping of oscillations, because those substances had been removed from sight.

¹This is Herbert Mayo's odometer.

He inferred from these experiments that the movement of the pendulum was due to involuntary muscular action. The idea of movement was enough to produce it unconsciously. Besides "he had a remembrance, rather faint indeed, of having been in a peculiar state when his eyes were following the oscillations of the pendulum he held in his hands."

Chevreur adds this passage, also quoted by Maxwell: "The pendulum held by a bona fide person gave a certain number of knocks, according as I believe to a thought that was not a volition, but a mere presumption of the real time; or in case there was no presumption, a circumstance not depending upon a guess, determined the number of knockings; for instance, a physical disposition of fingers that lasted only a few moments, or a casual circumstance which the experimentalist did not exactly take notice of. What I say here is no mere allegation, but facts I have myself observed."

I need not say, as I will repeat this concerning the divining rod, that here I am only discussing, and taking from the domain of Occultism the immediate mechanism of the exploring pendulum. The matter of divination is independent and broader. But Chevreur has established, and it is still demonstrated, that the movements of the exploring pendulum belong no longer to Occultism, and are definitively classified by science under the head of involuntary and unconscious movements.

IV. THE CONJURER'S WAND, OR DIVINING ROD

34. The conjurer's wand, or divining rod, is a small stick made from the hazel-tree in the shape of a fork,¹ which one

¹A missionary bishop spoken of by *Cosmos* (October 20, 1907), in order to avail himself of his remarkable powers as a spring finder, took a piece of metal (a silver or a steel watch, a golden cross, or a fragment of lead

uses for detecting springs, hidden treasures, or even the tracks of offenders.

The operator as a privileged person alone able to use this instrument, holds both sides of the fork with both his hands, and goes on the ground which he has to explore, taking care not to move voluntarily his arms. If, at a certain place during his journey the rod is oscillating and bowing down, so as to twist the wrist of the operator, who is unable to resist it, one should seek there in order to find springs and treasures.¹

Previous to the prohibition issued by Cardinal Le Camus, says Le Brun,² the conjurer's wand "was commonly used in Dauphiny."

Many country people—men, boys and girls—made a small income with their rods, and a good many quarrels respecting boundaries were settled in this way. Application was frequently made to judges who carried in their hands their justice and their laws. In order to detect, far or near, the most hidden things, the wand was taken advice of, with regard to past, present, or future. It bowed down for "yes," and ascended for "no." One should read in Gasparin's book³ the queer story of the famous Aymar, well known on account of his strange powers to detect springs, boundaries, and hidden metals.

In consequence of a murder that happened at Lyons in 1692, the sheriff summoned the operator. He was placed in a vault where the crime had taken place. His emotion was intense; his pulse began to get higher, and the rod (which he

or copper), hanging upon a string, which he held between two fingers. The piece of metal began to describe a circle whose size was in proportion to the proximity and plentifulness of the spring. This proves how it is logical to compare the conjurer's wand with the exploring pendulum.

¹Pierre Janet, *loc. cit.*, p. 367.

²Le Brun, Citat Bersot, *loc. cit.*, p. 99.

³Agénor de Gasparin, *loc. cit.*, t, II, p. 126.

held by both sides of its fork), began to turn quickly. He followed his rod, walked the streets through which the murderers had gone, went out of the city by crossing the bridge over the Rhône and went up the left bank of the river. Then he reached a house in which he asserted that the criminals had stopt. The wand turned over a bottle which they had made empty. After this he went to the Rhône, detected their tracks on the sand, and got on board a boat. He landed in many villages, going through inns, and recognized the bed the villains had slept in, and the table on which they had eaten. After many vicissitudes he finally reached Beaucaire, where he found them in a cell among about fifteen prisoners. He pointed to a hunchback, whose confession soon ratified his discovery. From all this, says Bersot,¹ a poor fellow aged nineteen, who had been denounced by the wand, was crushed upon the wheel at Lyons.

Aymar was not continually so successful. After many triumphs, his failures became more and more numerous. In Paris, at the Prince de Condé's residence; at the palace of the Guises, and chiefly at Chantilly, where he was unable to recognize a river under an arch, and failed to discriminate different locked boxes in which there were respectively gold, silver, copper, stones, and nothing. At last he died as a beggar. Maxwell² relates how Chevreul was induced to investigate those phenomena.

On March 4, 1853, the Académie (des Sciences), appointed a committee of three members "with the view to examining an account by M. Riondet, referring to the divining rod as used in detecting subterranean waters." Chevreul was intrusted with the Account. A little later the Academy

¹Bersot, *loc. cit.*, p. 101

²Maxwell, work quoted in the *Annales*, p. 281. See also his book on "Les Phénomènes Psychiques," p. 226.

readdress to the Committee a letter from M. Kœppelin concerning table-turning. As Chevreul had long since afforded an explanation of the rod and of the pendulum, and his explanation having been extended by others to table-turning, he abstained from issuing his account, as he did not wish to take part in the matter. However, "he disclosed his opinion to the world." He surveyed and censured the facts ascribed to Jacques Aymar, Bléton, Mlles. Martin and Ollivet, and to Expié, Bardé and de Pernan.

If I set cheats or jokers aside, there remain still a good many plaindealing people in this group of spring or treasurefinders. They make no voluntary movements; they are only moving involuntarily and unconsciously in an automatical or polygonal manner. Some hints inferred from different circumstances make the subject believe that there lies the spring, or treasure. His thought is involuntarily and unconsciously transferred to his fingers, and the rod is turning.

After long experiments, Sollas and Edward Pease came to the conclusion that "all tests with the diviner's perspicacity show that the rod is of no use. The influence of the hidden object does not affect the rod, but the diviner's mind.

As with the exploring pendulum and table-turning, the original startingpoint of the polygonal lies in O, which concentrates its thought on a thing; O puts the polygon in synergy with its thought, it sets it in the required condition for starting the movement, but does not give the voluntary command of movement. This movement happens, alone automatically, through the polygon, without O being conscious of the origin. The idea of making the rod turn is polygonal, or unconscious; so the movement is occurring involuntarily. O sees it and makes inferences from it.

Maxwell has made two serious objections to the preceding

ideas which belong to Chevreul, and have been completed in Pierre Janet's works. First, he reproaches me personally, and in this he is quite right, with having overlooked Barrett (professor of experimental physics at the Royal College of Sciences for Ireland), who has published in the "Proceedings of the Society for Psychical Research" (t. XIII, p. 2-282 and t. XV, p. 130-315) a long statement concerning this matter "which he has investigated as a sincere and competent man." In fact I did not hear of this work (besides, this likewise occurs to me respecting many other works), and I apologize here for it. In the next place, Maxwell declares that I stick to "the obsolete and indefensible theory, if facts are to be taken notice of." Here, I have to answer. I thought I had, in this paragraph, plainly declared that I meant only to shed light on the *immediate mechanism* of the rotation of the wand, and to set apart divination at large as well as a discussion of its special qualifications as a spring-finder. Provided one understands what my intention to investigate was, I do not perceive the objections one might make to this theory.

Maxwell himself tells us that Barrett, whose work is so important, "acknowledges that the movements of the rod are probably of an automatical order; that such movements are due to an unconscious muscular influence, and are to be included amongst motor automatisms, provoked by unconscious perceptions." This is exactly what I meant, and I find it quite important in itself.

In order to realize how momentous this question is, one should look back fifteen years upon the time when the rod belonged to Occultism. The rod was then taken advice of. It was thought that the spring or treasure had an influence over the rod. Nowadays, the matter has emerged from Occultism and entered the domain of Science, since it is known that the rod is directly put in motion, neither by a

spring nor by a treasure; neither by a fluid nor by an occult action whatever, but only by the psychism of the seeker.

In this matter now made scientific, if we investigate the reason why some subjects are more qualified than others for detecting a spring or a treasure, we have a second question, quite distinct from the other. It is so different that some spring-finders, such as Bléton, usually dispense with a wand. Therefore both questions are absolutely distinct and independent. While discussing the mechanism of table-turning, or automatical handwriting, I do not pretend to solve the whole matter of divination or premonitions.

Consequently, I believe I am right in asserting that Chevreul's theory is still exact as regards the divining rod. It makes this fact, which was occult up to that time, enter the realm of physiological facts, scientifically known. It is old, indeed, but not so obsolete. I should rather say that it has been made new, owing to recent investigations. In any case, it remains absolutely defensible in a scientific manner.

There is now another question to solve: i. e. the special psychical attitude by which certain persons are able to detect a spring. There is a French proverb that "It is not enough to wish to be a spring-finder in order to acquire the power of such."¹

Any polygon is not fit for this function, just as we have seen already that any one is not able to make tables turn, and, as we are going to ascertain, not everybody is successful in "willing-game."

According to Surbled, the spring-finders foresee springs. "Should presentiment be only a speedy and unconscious

¹The Berlin *Lokalanzeiger* (Aug. 28, 1906) relates that queer experiments as to the detection of springs and hidden articles have been successfully made at Wilhelmshöhe, by Prinz Hans von Carolath, while the German Emperor utterly failed in his attempts.

adjustment of probabilities," as Pierre Weber writes, "still it is always a polygonal function that is at work. In Laurent's opinion, a good spring-finder ought to combine a real empiric knowledge of the fields, with a power of abstraction that may lead either to hysteria or to a stronger volition. They are frequently found in persons whose lonely lives have made them meditative, and who are given to indulging in dreams, faintly guided by hardly perceptible impressions. This lonely life leads, as a matter of course to a great increase in psychological automatism.¹

All the facts (and they must be numerous), that are amenable to the preceding explanations, are consequently scientific and belong no more to occultism. If some facts like those quoted by Barrett, prove the existence in certain persons of transcendental powers more or less vague and mysterious, they belong still to the occultism of to-day with which I deal in the third part of this book.

V. WILLING-GAME² BY CONTACT

35. The well-known experiments of mind-readers may be made by professional people during theatrical performances or by amateurs. Some of my actual colleagues were quite successful with them when they were house-surgeons.

An object is hidden, unknown to the experimenter, who has blindfolded himself. A person who knows where this object lies comes in contact with him by touching his hand or his temple. This person, the conductor or guide, is then

¹See R. Warcolier and Prof. W. F. Barrett, "Expériences sur la baguette divinatoire," *Annales des Sciences Psychiques*, 1906, p. 745; and a lecture by Prof. Barrett on the history and mystery of the divining rod, *ibid.*, 1907, p. 147.

²"This practise, quite common in England, is called 'willing-game,' and in France, 'thought reading' or 'Cumberlandism,' after the name of the experimentalist who introduced it, a few years ago" (Pierre Janet).

strongly thinking about the place where the object lies; the experimenter then goes there at once and finds the object. This experiment may be made in many different manners. One thinks of a thing to do, or a number to guess.

First, there is nothing in it of hypnotism or hypnosis, as some people imagine. There is no clairvoyance nor sight through handtouching over the eyes. It may be nothing but juggling. Indeed, apart from juggling without professional conjurers, complete success may be reached with bona fide people. Here we find automatical movements, involuntary and unconscious or polygonal movements.

The "conductor" concentrates strongly his thought on the act to be done, and at this instant his thought is transferred—unknown to himself to his fingers. The center O of the conductor is thinking intensely. His polygon is acting, unknown to O, performs movements and by pressure or unconscious and involuntary attraction, guides automatically the person who has blindfolded himself. I have myself made some experiments in this line, blindfolding myself, and have very clearly noticed pressure or guidance made by the finger of the guide, unknown to him.

It is accordingly necessary for the purpose of success, for the guide to be very active and think intensely of the act he intends to perform; also that the conducted subject be quite passive, i. e. shall annihilate his center O, and allow his polygon automatically to comply with the impulses given by the conducting polygon. Sometimes the movement of the conducted person ceases; he hesitates, he feels at a loss. This is because the guide has left off thinking of the purpose. Should the guide be absent-minded, or if he thinks about something else, the conducted subject will get no more impressions, stops, hesitates, or makes mistakes.

As a consequence, the powers required to be a good conductor are quite different from those necessary for being a

good "conducted" subject; they are the reverse. The former should be authoritative and active, the latter must be passive, and of course has not to go into an analysis of the experiment, as I have myself done in the experiments quoted above. Every one is not equally successful; some are getting better results when playing one of the parts; while some others succeed better in the other part. Besides, some people are better qualified than others.

Pierre Janet relates the case of Osip Feldmann, who was successful when placing between the guide and the guided a third individual, passive and unaware of the aims to be reached, who was in contact with both of them and was, obviously unknown to him, transferring the movements of the conductor to the conducted person.

How is it that, with the conductor, the acts of pressure are unconscious, and at the same time involuntary? When his polygon is acting, why does his O not heed it, while it usually heeds polygonal movements?

The voluntary attention of the conductor is concentrated on an idea, or an aim. By this he becomes abstracted from his polygon, like Archimedes in his bath, especially if he is a sensory subject (either visual or auditory), who takes usually but little notice of his motor images, or does not heed them at all, when O is intensely thinking of something. Therefore, it is still the emancipation of the polygon through a mechanism always identical: absent-mindedness, the attention of O concentrated on one idea. This is still psychical, hyperpolygonal disaggregation.

Respecting this opinion, Pierre Janet observes that the experiment is far more successful when the subject, with unconscious movements, is naturally in a condition nearing psychical disaggregation, as is, for instance, an anesthetic hysteric. Besides, it is quite necessary that the conducting polygon be by nature, a good motor, making gestures read-

ily and willingly (as we will see that the medium's polygon does).

Things also occur in the conducted subject's polygon. He might heed them through O (as stated above), should he analyze himself; but he may also obey automatically without taking notice of it. He may even not be conscious in the least of what he is ordered to do, although he readily complies with it.

Besides, there is a queer thing in this case of unconsciousness of acts performed; it is possible to hypnotize the subject later on, and sometimes he meets again, in hypnosis, with the remembrance of the act he had been ordered to do, and of which he was not conscious through O.

Therefore, this is an automatic function of the polygon which is forgotten in normal and complete psychical life; but whose remembrance is formed again in another scene of the isolated polygonal life, like some dreams in which we meet again with the remembrance of previous dreams, and as in some fits of hypnotism or somnambulism, we find again the remembrance of previous attacks. The polygonal personality remembers itself as soon as it is emancipated from the censure and inhibition of O.

In all the facts of a "mind-reading," I have just discuss and whose theory I have sketched, there is always a contact, whatever it may be, between the conductor and the conducted. It is therefore easy to perceive the real resemblances between willing-game and table-turning. Here and there we find unconscious and involuntary movements, and in both cases, polygons that are more or less active, a guide and a guided subject or several.

The experiments made with a horse, Hans,¹ seem to be-

¹See "Le verdict de la Commission Scientifique sur le merveilleux cheval Hans," *Annales des Sciences Psychiques*, 1904, p. 384. Stumpf, Société d'hypnologie et de psychologie, December 27, 1904. Discussion:

long to the same group of phenomena. Hans answered questions referring to arithmetic, or to the most common matters of life, etc., by giving with his leg a certain number of stamps responsive to the place of a letter in the alphabet, or of a number in numeration exactly in the same manner as spiritistic tables do. The committee, presided over by Prof. Stumpf, of Berlin, asserted that they had noticed in the horse nothing similar to reason. Hans was acting according to signs made by his master. Those signs were performed in an unconscious manner, for the good faith of Herr von Hosten seemed obvious. Herr von Hosten's polygon was guiding Hans, unknown to O, in the same manner as the conductor and the guided in the experiments with willing-game.

Oskar Pfüngst, a psychologist of the University of Berlin, made a very close investigation of the phenomenon, and established that Hans was playing at willing-game by sight. At the beginning of his researches Herr Pfüngst imagined that Herr von Hosten made various little movements as soon as Hans had given the necessary number of stamps. But others—the committee for instance—failed to perceive such movements. Herr von Hosten, who had no consciousness whatever of their existence, denied them. This is the reason why Herr Pfüngst invented an instrument, owing to which the smallest movements performed in any of the three dimensions by the person who had entered it, were immediately registered and amplified on a cylinder. This being done, Herr Pfüngst played the horse's part; another person (within the apparatus), acted as the "Barnum." Herr Pfüngst gave accurate answers, and he experienced no difficulty after the experiment in showing printed in large

Bérillon, Lionel, Dauriac, Binet-Sanglé, *Archives générales de Médecine*, 1905, p. 25. "Der Kluge Hans," *Annales des Sciences Psychiques*, 1906, p. 781.

types on the cylinder the small signs that had helped him to answer. Should the horse be made unable to see owing to blindfolding or by any other method, he would be unable to answer. Hans "was only observing, but very minutely, and interpreting signs made unconsciously to him." This is willing-game by sight.¹

¹See "Un autre cheval merveilleux: la 'princesse Trixie,'" *Annales des Sciences Psychiques*, 1907, p. 145.

CHAPTER V

POLYGONAL MEMORY AND SENSATIONS—ERRO- NEOUS DIVINATIONS—POLYGONAL HALLUCI- NATIONS AND CRYSTAL VISION—POLYGONAL REMINISCENCES AND MISJUDGMENTS

I. 36. *Polygonal sensibility and memory.*

37. *The sensibility of the polygon.*

38. *Memory in the polygon.*

39. *Facts recently "disoccultated" which depend on this polygonal
function.*

II. POLYGONAL HALLUCINATIONS AND CRYSTAL VISION.

60. *Polygonal Hallucinations.*

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a. Description of the phenomenon and historical account.

b. How to produce the phenomenon.

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a. When absent of mind.

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43. *A sensation of "things seen previously or already felt" or errone-
ous recognition.*

a. Some attitudes of O respecting those polygonal reminis-
cences.

b. Description of things previously seen.

c. Psychophysiological analysis of the phenomenon.

44. *Pathology of polygonal memory.*

a. Polygonal hyperamnesia.

b. Total amnesia with preservation of the polygonal memory.

c. Polygonal amnesiæ.

I. POLYGONAL SENSIBILITY AND MEMORY

What I have said in Chapter III concerning hypnotism, is already proof that the polygon has a sensibility and memory of its own. Sensations perceived by the subject asleep, during hypnosis, and the fulfilment, more or less slow, of suggestions given during hypnosis prove in a definite manner that the polygon perceives and registers suggestions. This ought to be carefully investigated and generalized.

37. THE SENSIBILITY OF THE POLYGON.

Sensation is a psychical phenomenon caused by the coming of a centripetal impression to the upper neurones of consciousness. By connecting themselves together, sensations produce an image and cause pleasure or pain, or an emotion—joy, or sadness.

Such phenomena which most usually involve the necessary interference of consciousness, cannot occur to the lower psychism. Thus, strictly speaking, there is no polygonal sensation. But there are centripetal sensations that come to the lower psychism without going beyond it, that do not reach O, are not conscious, and produce in the neurones of the polygon a phenomenon analogous to the phenomenon called sensation when it occurs to the neurones of O.

Proof of this polygonal phenomenon is afforded, not through observation, which is by nature impossible here, but through the parts of memory, which I shall examine further on, and through motions or outward manifestations, connected with this centripetal impression, whose growth thus establishes the reality of polygonal sensation—unconscious sensation to which Gerby alluded when he said in 1846: "One must get used to the thought that there may be sensation without perception of it."

Those unconscious sensations, when connected produce polygonal images, or even unconscious emotions, which are perceived through O at the end only. The patient becomes sad; he does not know the reason why. Such polygonal sensations may be examined not only in hypnosis (see above), but also in absence of mind, somnambulism, ambulatory automatism (see above) and also in willing-game or even in table-moving, and very likely in the conjurer's wand. It is by means of polygonal sensations that dreams may be provoked or directed during natural sleep. The sound of a bell becomes a funeral knell for yourself or one of your beloved. A lighted candle will burn into a conflagration stirred by the heavenly fire; it may engulf you, and you will be very much in danger.¹

Visceral impressions may likewise reach the polygon during sleep and direct dreams. Owing to an indigestion, one may dream of inward sores. A person subject to giddiness may dream of falling down, sailing or see-saw. Another person laboring under dyspnea, may see beasts and monsters that lie heavy upon his breast.

Thus a dream may reveal a peculiar somatical condition unknown up to that time. Men formerly derived from there divinatory interpretations and nowadays moderns derive from the same origin their semeiological inferences of dreams. Galen reports that a young man dreamt that he had a stony leg; soon afterwards he was struck with a paralysis of the same side. Vaschide and Pieron have shown that in many dreams there is a physical substratum, a pathological disorder, that dreaming helps to detect. This same polygonal sensibility is made manifest during certain diseases. Thus an anesthetic hysteria does not perceive,

¹See Alfred Maury, "Le sommeil et les rêves," "Etudes psychologiques sur ces phénomènes, et les divers états qui s'y rattachent," 4th ed., 1878.

but uses sensations; they reach his psychical neurones (polygons).¹

In the same way a person suffering from aphasia reads aloud and does not understand; he sees only what he is reading through his polygonal neurones.

38. MEMORY IN THE POLYGON.

The meaning of the word memory has been excessively extended. Renault² makes it a faculty of all neurones.³ Charles Richet describes as a kind of elementary memory, the persistence of excitability, after an excitation, in the spinal marrow of a frog. Sollier⁴ compares the neurone which remembers with the magnetic bar that settles its magnetic power and provokes it as soon as it meets with filings. Likewise, in Van Biervliet's⁵ opinion, "All the solid, or semi-solid parts of the organism preserve remembrances as well as the cerebral cortex, or perhaps better than it." He sets forth the faculty of memory in the spine and says: "Germs have a memory . . . and that memory is spread all over our body." This is an exaggeration that utterly alters the nature of the meaning of the word "memory."

It has been rightly observed by Pitres,⁶ that we do not know "why one has left off going further. Why has it not

¹See p. 177 of my "Psychisme inférieur," a series of experiments which prove that, in certain circumstances, the impressions not perceived by O reach the polygon.

²Renault, "Le neurone et la mémoire cellulaire," *Annales des Sciences Psychiques*, 1899, p. 261.

³The neurone is a partition mostly sensitive and it remembers.

⁴Paul Sollier, "Le problème de la Mémoire. Essai de psychomécanique," Bibliothèque de philosophie contemporaine, 1900.

⁵Van Biervliet, "La mémoire," "Bibliothèque internationale de psychologie," 1902.

⁶Pitres, "L'aphasie amnésique et ses variétés cliniques," *Progrès médical*, 1898.

been said that the inertia of a muscle severed from its motor nerves is an amnesia of contractility, and that the mortification of a limb is an amnesia of its nutrition?"

Memory must be kept for psychical neurones. But it should not be asserted, as Sergi does, that "memory is a revival of the condition of consciousness." There is an unconscious memory, a memory of unconscious phenomena, a polygonal memory; the neurones of lower psychism have also a memory. I have previously proved the existence of such a memory in hypnosis. Likewise, in absence of mind, reminiscences may be gathered that reach the polygon and are impressed there, unknown to O. Such reminiscences reappear later on, as automatical acts, during subsequent periods of absence of mind. Some persons meet again during a subsequent sleep with reminiscences of a previous sleep, and their dreams return from one sleep to another, while in the time intervening between sleep and impression a remembrance of such dreams has faded away. Thus Mme. de Raehilde goes on with her dream from one sleep to another as do the succeeding numbers of a feuilleton.¹ This alternative memory is frequently noticed in somnambulism, inebriation, etc.

The main point in researches is to have an accurate knowledge of the laws of polygonal memory, and of the principles of raising up polygonal remembrances.

In instances quoted above, the polygonal reminiscences were again met with from one condition to another of the same kind of hyperpolygonal disaggregation, from one condition of somnambulism to another; from one condition of hypnotic sleep to another. They may again be met with in a case involving any condition of hyperpolygonal disaggregation, or a crisis attended by a second dissimilar

¹See Paul Chabaneix, "Le subconscient chez les artistes, les savants et les écrivains," Thèse de Bordeaux, 1897.

condition of hyperpolygonal disaggregation. Thus, a revival would occur from an attack of hysterics to one of hypnosis, from an attack of somnambulism to one of absence of mind (automatical hand-writing); from one of absence of mind to normal sleep or crystal vision,¹ from normal sleep to hypnosis, or vice versa.

In hypnosis, Auguste Voisin² bids a patient murder, when awake, a woman in bed in an adjoining room, and forget everything. As soon as awake, the patient goes there and stabs a hamper which was at the appointed place. Magistrates who had witnessed the experiment, failed to get from him either confession of the deed, or the name of the accomplice by whom the act had been suggested.

But three days later the patient came back to the Salpêtrière. In his countenance were shown indisputable marks of mental suffering and sleeplessness which he had complained of since that time. He declared that he saw at night the vision of a woman who reproached him with having stabbed her.

Lastly, when awake, O may take hold and become conscious of a remembrance impressed unknown to it in its polygon, in a previous condition of hyperpolygonal disaggregation, like absence of mind, normal or artificial sleep or somnambulism. And then O reacts in various ways against this reminiscence which occurs to him like a new fact, whose origin O does not know; it may remain anxious, or believe itself to be the author of this reminiscence.

39. A certain number of facts that were formerly occult have been removed from occultism since the minor psychical functions, which I have just recalled have become perfectly known. I divide them into two groups: poly-

¹See further what I say later on of crystal vision.

²Auguste Voisin, "Les suggestions criminelles posthypnotiques," *Revue de l'hypnotisme*, 1891, t. V, p. 382.

onal hallucinations and crystal vision and misjudgments due to polygonal reminiscences. Both orders of phenomena have been causes of erroneous divinations.

II. POLYGONAL HALLUCINATIONS AND CRYSTAL VISION

40. POLYGONAL HALLUCINATIONS.

Seglas, and many scientists with him, consider hallucinations as a pathological kind of perception. Indeed, there is a phenomenon of perception in hallucination, there has been perception of an impression without any real outward responsive stimulus. But there is also a phenomenon of imagination which is the cause, as well as the starting point of perception, a phenomenon of objectivation that is really initial.

What is essential and noteworthy in hallucination, is not indeed the perception of a merely imaginative and unreal object; it is necessary to believe real and outward the object perceived. I can imagine a man riding on a horse; I can see him very well in his proper attire; I can see also his horse's bridle. Tho I see the man I know that he is not really existing. This is no hallucination, but I have received absolutely the same perception as if it were and I believed in the rider's existence outside of myself, which would have been an hallucination. Thus, the distinctive element of an hallucination is the coming to perception of an image unconsciously originating within the polygon, and which is impressed there with such an intensity that the perceiving center believes in the real and outward existence of this object of its perception.

This center of perception may be and very commonly is O. In this case the polygon is only interfering as an organ producing the image. But perception may also occur

within the polygon, which is then alone to produce the entire hallucination.

So, during sleep in hypnosis, or somnambulism, or mediumistic trance, as often as the polygon is disaggregated from O, in a physiological, extra-physiological or pathological manner, the image is made within the polygon, and the polygon perceives and exteriorizes it, with a power of objectivation sufficient to make it believe that this image is real.

Therefore, in any hallucination, there is above all, a disorder of polygonal imagination. But a great weakness of the perceiving intelligence is equally necessary, whatever may be the group of psychical centers that are perceiving. This second element which is the starting-point of the intellectual central theories of hallucination, is so utterly real that in certain serious cases hallucination bears an absolute likeness to real delirium, this word being used in its broadest meaning." (Seglas.)

There is always a touch of misjudgment in hallucination. However, one should not take hallucination for a misjudgment. Between both there is the same difference as between perception and judgment.

One should likewise go on distinguishing hallucination from illusion, tho a certain impression may usually appear as having provoked the image of hallucination (there lies the starting-point of peripheral, or sensory, theories of hallucination). But hallucination is caused by an impression that is not perceived in an erroneous manner as in illusion.

In short, hallucination is, like most psychical symptoms, a complex phenomenon in which there are an element of sensation (or impression), and an element of perception, but the intermediate disorder of imagination seems to be the most prominent element of hallucination at large.

It may be realized how hallucinations have frequently been a pretext for, or an apparent starting-point of, supernatural messages or divinations, especially should they be unconscious and polygonal, i. e. when they develop within a subject who is not insane, whose center O is not injured, and must be consequently regarded as trustworthy.

I am now going to insist upon one of the forms of hallucination most commonly prevalent in occultism.

41. CRYSTAL VISION.¹

a. Description of the Phenomena and Historical Account.

In the study of a haunted house by Calmette² and myself, I said that the medium (Jeanne) and her mother went to take advice from a somnambulist who did not hesitate. Jeanne was hunted by somebody who had thrown a spell over her. In order to detect this person the somnambulist placed before Jeanne a glass filled with water, and standing on a white plate.

"Look at the bottom of the glass," said the somnambulist to Jeanne. "I am looking and see nothing." "Look more closely, what do you see?" "The white plate." "Look still more closely; don't you see a face?" "Yes, I believe I see a face." "How is it?" "It is an old, wrinkled woman with a black bonnet; her teeth are damaged; she has a flat nose." "In case you met her would you know her?" "Yes." "At midnight," said the somnambulist to Jeanne's relatives, "cause her to repeat this experiment; she will better describe the old woman."

At midnight Jeanne was placed before a glass of water

¹See Pierre Janet, "Sur la divination par les miroirs, et les hallucinations subconscientes," Conférence faite à la Société des Amis de l'Université de Lyon, July, 1897; and, "Nécroses et Idées fixes," t. I, p. 407, Gaston Méry, "La Vision dans le Cristal," *L'Echo du Merveilleux*, 1904; pp. 441 and 461.

²*Leçons de clinique médicale*, "Le Spiritisme devant la science."

standing on a white plate. She saw very distinctly, at the bottom of the glass, an old woman whom she described exactly; she went so far as to describe her dirty petticoat, her black bodice with red stripes, her checkered apron and even her rings, one of which was of garnet color. Through her description the family readily recognized an old woman who had thrown a spell over Jeanne's dying grandmother. The whole city had gathered in a mob against the sorceress and would have thrown her into the river had not the somnambulist advised them to burn a living cat, which was done accordingly at 11 P. M.

Alexandre Dumas¹ says it was through a decanter, laid on a golden plate and placed in the dark recess of a semi-circular vault where some factitious rocks imitate a grotto, that Joseph Balsamo, who was to become known as Cagliostro, showed to the Archduchess Marie Antoinette, later, queen of France, the terrible future that was in store for her. At this sight the Dauphiness² knelt down, made unsuccessful attempts to stand up, staggered for awhile, fell down again, shouted fiercely and fainted.

Joseph, the minister to Pharaoh, put his silver cup in Benjamin's sack and asked the steward of the house to tell his brother that the cup which he had stolen was the cup used by his master to drink and to prophesy with.³

¹Alexandre Dumas, "Joseph Balsamo," "Mémoires d'un Médecin," Nouvelle édition en 5 vols., t. I, p. 175.

²The Dauphiness was at first questioning what was to occur to her new family. The Royal family consisted of three princes, Duc de Berry (Louis XVI), Comte de Provence (Louis XVIII), and Comte d'Artois (Charles X). They would be kings, all of them, said Balsamo. "How will my husband die?" "Without head." "How will Comte de Provence die?" "Without legs." "How will Comte d'Artois die?" "Without his court." "And myself?" Joseph Balsamo shook his head and refused to answer. Then being urged, he took Marie Antoinette to the decanter, where she fainted, struck with terror.

³Gen., xlv, 5.

This phenomenon has been known from remote times. According to Varro, this kind of divination originated in Persia. It was, as Pansandas asserts, practised at Palta, in the temple of Ceres. Spartianus declares that Didius Julius, when Septimus Severus was marching against him, sought the divination exerted with a looking-glass, through which children, whose eyes had undergone a peculiar witchcraft, could see the future. The child chosen was able to see the coming of Severus and Julianus drawing off. This is what happened in fact shortly afterwards. In all works concerning magicians and sorcerers, mention is made of crystallomancy. In India, the priests of older times used to foretell the future by making people stare at a glittering leaf on a wall. Half a century ago an English traveler saw a child detecting robbers through this proceeding. He saw and described Nelson with his amputated arm, tho he made a mistake with regard to the side the arm had been on. This is not difficult to realize, as he could see Nelson as in a mirror.

In Greece, people used to look at spring-water, and images became visible (hydromancy), or through jars filled up with oil (lecanomancy). Ulysses questioned Tiresias in this manner, or through mirrors (catoptromancy), or through decanters filled with water, or with metal balls or any kind of glass (crystallomancy). Some people were simply made to stare at a nail of the finger on which a small quantity of oil had been laid (onycomancy).

It is reported that Francis I of France, and Catherine of Medici kept in their palace mirrors adorned with stars through which they could detect secrets concerning politics, or the plots and conspiracies of their enemies.

There was in the sixteenth century, a kind of small crystal that was used all over Europe by an Englishman named John Dee. Individuals visible through that magical stone talked and gave information to applicants.

In a diffuse passage quoted by Gaston Méry, Saint Simon relates some disclosures made in 1706 to the Duc d'Orléans, who was to become Regent of the Kingdom, by one of those "rogues constantly upon the watch for hidden curiosities, a good deal of which had been seen by M. le Duc during his life," and who pretended to make appear in a glass of water, anything that might be wished.

b. How to Produce the Phenomena.

Pierre Janet describes in the following way a phenomenon which may be successfully tested by many people. According to some English authors, ten persons out of fifty are successful with it. But Pierre Janet deems such a number exaggerated.

You take a glass ball and place it in a special place. The best way is to set it in a place neither quite dark, nor absolutely luminous, with only a dim light skimming over it. The following is the most usual mode of acting: the experimentalist should place himself in broad daylight. The ball is to be surrounded with screens or dark cloth. After this the subject is comfortably placed and requested to stare at the ball. He must not fall asleep for this experiment has nothing to do with hypnotism. He perceives at first insignificant things around him, the colors of the rainbow, a luminous spot; in short all reflections usually visible through a glass ball.

After awhile things are altered: i. e. the ball gets darker; the patient sees nothing else; reflections as well as objects are blotted out; it seems that the ball is covered with moisture. This is the opportune moment. The cloud is quickly increasing, and amidst it drawings and sketches that are at first quite simple may be perceived, such as lines or stars, or black stripes on a white background, but also more interesting and more precise lines are appearing, such as letters,

iphers, etc. A little later colored shapes become visible, such as people, animals, trees, flowers. The patient, whose emotion is rather intense, keeps on looking; he is pleased with his vision, especially when there is variety in it.

To some subjects motionless people appear; to others they are moving and they disappear, bow to each other or talk. Some subjects listen to this kind of speech, which is quite strange. Sometimes, when tested by certain experimentalists, the phenomenon becomes more precise, or more complex, and assumes a strange mark of stability.

The patient makes vain attempts to turn his eyes away; should he begin his test again, he sees the same vision. In such a case images are usually quite distinct, and it is possible to describe them with minute accuracy. This occurred to the patient above referred to. She was constantly seeing the same old woman whom she so exactly depicted that the whole city could identify her.

Some persons leave the ball for a moment, and go for a magnifying glass. When coming back they see the same vision again. They look at it through the lens, and images are cleared up and become more precise. "I have even seen a person," says Pierre Janet, "who could extract images out of the ball, make them objective on a sheet of paper, and follow by means of a pencil the drawing that was produced by his hallucination."¹

Finally, in order to complete the description of the phenomenon I quote here the summary of an autoobservation shown to Gaston Méry by Father Lesœur. A young woman took a glass of water, "asked for the help of the

¹I shall speak further about Helen Smith, Flournoy's medium, who in her last cycle (described by Lemaître) delineates her polygonal hallucination (the head of Christ). As Helen says, when making her drawing she had only to follow with a pencil the features of Christ who had bent his head over a sheet of paper (prepared by Helen), at the very moment when she fell into somnambulism.

spirit of Aracra," and depicted the absent persons about whom she had been questioned. "Then," says the author, "I was requested by her to look with her, as she was sure that in bidding me to see, I should see. In fact, after a short while of close attention (and a new call for Aracra's help) I gradually perceived a house, a kind of small mansion, rather distant, and then trees and people. But I could see only half the scene which was much more visible to the seer. When alone I tried again the same experiment and, to my intense amazement, I saw emerging a head of Christ, who looked very much afflicted. I went away and uttered a cry of wonder; but, as I stared again, I could see plainly in profile the face of the 'Ecce Homo.' Then, lessened little by little, it faded away. This lasted hardly for one minute." A similar phenomenon is described by Guy de Maupassant in the "Horla," where, looking in a mirror, he does not see himself, and has a prolonged hallucination.¹

c. Psychological Analysis.

Pierre Janet, who describes and analyzes this phenomenon very clearly, deems it to be a subconscious hallucination. It is indeed an hallucination that develops within what is called the subliminal, i. e. in the polygon disaggregated from its upper centers, but which in certain conditions, or at certain moments, O can witness; then this hallucination becomes conscious.

As remarks Newbold, an American psychologist cited by Pierre Janet, when incompletely lighted the mirror is acting as a visual stimulus on the polygon in expectant attention; it offers an empty space and incites imagination to fill it up.

¹According to Ch. Lancelin (*Journal du Magnétisme* and *Journal des Débats*, 1907), there are three sorts of magical mirrors: first, solar mirrors (metallic); second, lunar mirrors (crystal ball); third, saturnian mirrors consisting of dark disks of polished graphite, or of thick ink in the left palm of a child, the mandel of the Arabs.

O does not take part in this; it does not say (which it is well aware of) to the polygon that there is nothing in the crystal. The polygon being not checked by O, gets into an hallucination, sketches its creation, sees various things, makes associations of images, combines them together, settles them and so determines the definitive hallucination.

The polygon determines alone this hallucination; it is by itself capable of describing it. We shall see further that it frequently meets again with unconscious reminiscences previously developed within the polygon. But O, which has taken no part in creating the hallucination, and does not witness its growth, may, at a certain moment, detect the hallucination within its polygon; it may become conscious of it, consider it as a reality and cooperate in its description.

Such revelations of polygonal imagination will astonish you; you will esteem them marvelous or supernatural because they will not point out to the bystanders or the subject himself things which they did not believe they knew, or which were not thought known to them, but which were stored within the unconscious memory of the polygon. The conclusion of all this is precise and should not be disregarded or exaggerated.

As with the divining rod and table-turning, the crystal vision has in itself nothing occult or extrascientific. It is a phenomenon belonging to a group of psychological facts already known and analyzed.

Now, we may observe that this affords no explanation of the facts of divination or telepathy as occurring through crystal. Should those facts be real they evidently are not explained by polygonal activity, but they do not depend on the crystal any more than they depend on the rod or the table.

The matter of telepathy at large, as well as the matter of

clairvoyance or mental suggestion, belongs to the occultism of to-day, which I shall discuss in the third part. But crystal vision belongs no longer to occultism; neither does the conjurer's wand, the exploring pendulum, nor table-turning.

This is all I intended to establish, and the conclusion being thus made precise and restrained, it is still quite important, since for a long while a mysterious or even supernatural element has been imagined to exist in the very fact of crystal vision, and the letter cited above, of Father Lescoeur's correspondent, testifies that there are still individuals inclined to detect some marvelous particulars in such polygonal hallucinations.

III. POLYGONAL REMINISCENCES AND MISJUDGMENTS

42. POLYGONAL REMINISCENCES.

I have previously stated that the polygon has a memory of its own, and that unconscious reminiscences stored in the lower psychical neurones, may at a certain moment be expressed to O, which is not aware of their origin, and feels sometimes inclined to take them as a supernatural message, a divination, or a telepathical impression.

In my opinion the term "reminiscence" is quite fit for such remembrances, which the subject again meets with, whilst he believes he finds them for the first time, as he is unaware that they are remembrances only. This O being unconscious of the origin of such reminiscences, they must have been acquired by it in a state of hyperpolygonal disaggregation, such as absent-mindedness, sleep or hypnosis. They may also be made manifest either at waking or in another condition of hyperpolygonal disaggregation identical with the first state or different from it. Post-hypnotic sug-

gestions, more or less long-dated, are included under this head of polygonal reminiscences. The following are other instances which will verify the fact and make it more intelligible.

a. When Absent of Mind.

A queer passage in "Crime et Chatiment" has been indicated by Jules Soury to Pierre Janet. Dostoiewski admirably describes in it the unconscious retention of impressions during absent-mindedness, and their subsequent revival as automatical acts, whose origin remains unconscious, and in consequence appears as more or less mysterious and occult.

"I was going to your house," said Raskolnickoff, "but how is it that, when leaving the haymarket, I passed through the Prospect? I never came that way; I always follow the way on the right when coming out of the haymarket; besides, it is not the way to your house. Hardly had I turned to that side when I saw you; how strange!" "But you have most likely slept all those days," answers Svidrigailoff; "I have myself given you the address of this place, and no wonder you have directly come to it. I have told you the way and also the hours when I am to be found. Don't you remember?" "I had forgotten it," said Raskolnickoff quite surprised. "I believe so. Twice have I supplied you with this information. The address has been automatically impressed on your memory, and has been your guide, unknown to you. Besides, when I was talking to you I could well notice that you were absent of mind.¹"

Of course Raskolnickoff was absent of mind. O was concentrated on something else, while Svidrigailoff had stored the information within its polygon. Raskolnickoff had not forgotten; he had remembered it, but through his polygon

¹Dostoiewski, "Crime et Châtiment," t. II, p. 219.

that alone had been imprest on him. Having been aware of nothing he had nothing to forget. Should Svidrigailoff and Raskolnickoff have been less learned, they would in this case have believed in an occult power pushing them towards one another.

b. When Dreaming.

In sleep, which is a state of hyperpolygonal disaggregation when dreaming, reminiscences stored during another condition of hyperpolygonal disaggregation, such as absence of mind, are sometimes met with again.

Maury is consecutively dreaming during several days of "a gentleman with a white neck-tie, a hat with broad edges and whose countenance is peculiar. He has about him something of an Anglo-American gentleman." He does not know this gentleman in the least. But, later on, he meets with him and finds him to be absolutely identical with the man of his dream, and in a quarter of the town where he had frequently gone before his dream, and in which he had certainly seen him without heeding it. This bestows on the dream the distinctive mark of a divination, or a premonition, but as a matter of fact it is only a revival of impressions unconsciously obtained and stored.

Another time Maury dreamed of an association of three proper names with those of three towns in France. He did not understand such a dream, but subsequently found an old newspaper where this association had been mentioned in an advertisement. When absent of mind he had read it and had preserved it unknown to O, within his polygon, and finally, during the hyperpolygonal disaggregation of sleep, again met with it. Sleep may thus disclose remembrances formerly, and with more or less absent-mindedness, stored by the subject within his polygon, but which he has forgotten.

Delboeuf dreamed of the term "asplenium ruta muralis,"

as if it were a familiar term. When awake he failed to account for the origin of the words, which reminded him of nothing, and appeared as a mere creation of his polygon. A long while later he detected the term "asplenium ruta muralis," as written in his own hand for a collection of plants, under dictation from a friend who was a botanist. Brockelbank lost his penknife, tried in vain to find it again, and then thought no more about it. Six months afterwards he dreamed and saw it in the pocket of an old pair of trousers now out of use. He got up, went to the trousers and found it. Was this divination? No, it was polygonal reminiscence occurring during sleep. Myers,¹ from whom I borrow the following instances, mentions various cases of objects lost, detected in dreaming and ever through the same proceeding. The occasion becomes far more pleasant, but not more mysterious, when the polygon adorns its reminiscences with a little romance.

A young girl lost a knife which she cared for a good deal and failed to find it. One night she was dreaming that a departed brother of hers whom she had dearly loved, was appearing unto her, holding her hand and leading her to the very place where the knife was. She woke up, went there and found the knife. One may well guess how it will be hard to hinder that child from believing in a revelation from beyond the grave. Still, the case is merely a part of polygonal reminiscence. One may see from this the great care that should be taken when making an inquiry and before asserting that the case is supernatural.

c. Before the Crystal Vision.

The disclosure of polygonal reminiscence whose origin is unknown to O because it has been stored away during ab-

¹Myers, "The human personality." See also the very remarkable book of Joseph Jastrow about "the subliminal."

sence of mind, may be made in other conditions of hyper-polygonal disaggregation than sleep. For instance, in crystal vision, "Miss Goodrich Freer," says Myers, "sees through a crystal the announcement of the death of a friend of hers, a fact quite apart from her Ego, which is usually conscious. When reading *The Times* she finds in a sheet which she had used as a screen against the heat of the chimney, the announcement of the death of a person bearing the same name as her friend, so that the words had gone through her field of vision, but had failed to reach her mind when awake."

That is indeed all the explanation there is to this phenomenon as assuming a bearing of divination or clairvoyance. When she was sitting before the chimney and thinking of something else with her O, this lady had read and preserved within her polygon that name which she recognized in *The Times* as then used by her as a screen. She had had no consciousness, no conscious reminiscence of the fact. But when her polygon was again disaggregated by crystal vision, it detected this name which belonged to a beloved person. It dramatized this remembrance and made it appear in the crystal as the death of this friend.¹

d. When Awake.

When awake, O may also take hold of the polygonal reminiscences and become conscious of them, even without heeding their origin and the nature of the remembrances.

¹A person "saw appearing in a crystal a young lady who was her friend and was riding in a carriage and bowing to her. The hair of this young lady was erect, while up to that time, it had hung down. During the day, the person to whom we refer had in fact passed by the carriage of her friend, but she says she had most certainly seen neither her friend nor her carriage. The following day she went to see her friend who asked her the reason why she had not recognized her, and she was surprised to see that her hair was dressed as was perceived through the crystal." Jastrow, *loc. cit.*, p. 75.

a. Absent-mindedness and Waking.

In absence of mind disaggregation is loose and incomplete. By insisting a little O may become conscious of an impression stored within its polygon. You ask a question of an absent-minded individual and he will ask, "What?" He has heard you are talking to him, but has taken no notice of the question asked. Without repeating your question, you insist and say, "Think over it, I have asked you something." "Oh, yes," he says. He then makes an effort, detects your question in his lower psychism, and answers it.

Likewise, in a spontaneous manner, or under the influence of a strong and new impression, O gets out of its absence of mind, and while reassuming the management of the whole psychism, detects several polygonal reminiscences. On the threshold of Mme. de Haut Castel's house, Xavier de Maistre was heeding his own absent-mindedness.

While talking it may happen that you notice too late and through O that you have unconsciously used one word for another several times already. This is a polygonal reminiscence abruptly heeded by O. The matter becomes more complex but remains of the same kind when a polygonal reminiscence has been received by O. It is already modified by a polygonal argument, or by an unconscious association of ideas or images.

Myers relates the instance of a botany student who was heedlessly passing in front of the signboard of a restaurant, and believed he read on it the words "verbascum thapsus." But the word really printed on it was "Bouillon," which is the French usual expression for the plant *verbascum thapsus*. There occurred, as Myers says, a subliminal alteration of the actual optical perception and those words: "verbascum thapsus," became the message conveyed to the superliminal absent-minded Ego by the subliminal Ego, which was more engaged in botany than in a dinner.

Cases of undergoing such a polygonal and consequently unconscious alterations between a crime and the criminal court are numerous. How many perjurers are not guilty because their deceit is of the same order as the involuntary and unconscious and consequently not fraudulent deceits which we have discust in the second chapter of Part I. The original, real and really perceived, impression is altered by polygonal imagination (which we will investigate in the following chapter), and the upper centers express it consciously and voluntarily, under its new aspect, which has become unknown to them and is absolutely erroneous. You may declare that you have met with Mr. A. in such a place, at such a time, whilst you have actually seen Mr. B. there; the color of gloves or attire has associated the idea of Mr. A. with the idea of Mr. B. in your polygon, and has finally preserved the remembrance of Mr. A.

The impulse of passion, gregarious impulse, as well as all conditions of hyperpolygonal semi-disaggregation lead thus into polygonal arguments whose conclusions are often quite dangerous when O asserts and maintains them in absolute sincerity and even upon oath.

Without the above psychophysiological analysis one might easily ascribe to occult or supernatural powers the vision of transformation, apparently spontaneous, of impression and ideas, whose origin remains unconscious, and of course mysterious to O.

β. Sleeping and Waking.

Reminiscences of sleep in waking, or vice versa, may involve similar interpretations. The revocation by O of polygonal memory from sleep to waking may be provoked by a sensory impression having a more or less direct relation to the dream in question. Sometimes revocation is due to a visual or auditory representation. The word "citizen"

uttered in a dream, and again uttered on the following day, recalls the remembrance of this dream, and makes it live for a few moments. An odd suit of clothes, seen at waking, recalls a dream in which a person appears attired in a similar manner.¹

Reversely, it frequently happens that remembrance of waking encroaches upon sleep. Very often reminiscences of waking provoke and guide the subsequent dream. Such remembrances in dreams may even assume absolutely the bearing of a real hypermnesia. "This intensity," adds Tissié, "may render miracles credible." The clerk, cited by Abercrombie, remembered when asleep an act he had performed at waking nine months earlier, and in a similar condition a man of Bowland met again with a remembrance of his youth. This hypermnesia had been provoked by concentration of mind and undeniable work at the time of waking.

These facts are very nearly identical with those of Myers cited above, in which the disaggregated polygon finds again, during sleep, polygonal reminiscences that are forgotten at waking.

43. A SENSATION OF "THINGS PREVIOUSLY SEEN," "PREVIOUSLY FELT," OR ERRONEOUS RECOGNITION.

a. Some Attitudes of O Regarding Polygonal Reminiscences.

Various are the impressions made on O by the more or less abrupt knowledge of a polygonal reminiscence, as well as the ideas aroused in O by this reminiscence, whose existence up to that time was unknown to it.

a. In the most frequent cases (these are of little interest here), the subject recognizes the nature and origin of the remembrance, without any surprise or mistake.

b. O sometimes hesitates concerning the origin and real

¹Tissié, "Les Rêves. Physiologie et Pathologie," Bibliothèque de Philosophie contemporaine, 2d ed., 1898.

nature of the impression suddenly disclosed to it. For instance, on getting out of bed you ask yourself whether you are dreaming or awake, and whether the idea that occurs to your mind is a reality or a dream. This hesitation is persistent in some individuals. A soldier, cited by Tissié, was dreaming that he was tried before a court-martial and had given up his sword. When awake he put his hand on his sword at his side in order to ascertain whether it was still there.

c. The polygonal reminiscence may appear to O absolutely as a true reminiscence. In this case O does not believe at all that it is a reminiscence, which it imagines to be the author of the idea. The act provoked in fact by memory seems to be a spontaneous act of the upper centers. Such a phenomenon occurred to Raskolnickoff in the scene cited above by Dostoievski. He believed he had spontaneously walked to the right when leaving the haymarket, when he had in fact complied with a mere polygonal reminiscence.

d. Finally, in more complex cases, by feeling a sensation O recognizes it, because it is a reminiscence preserved by its polygon within its memory at large, and at the same time it is unable to account for the origin of this reminiscence—neither for the place where nor for the time when it acquired it. Consequently it recognizes a thing which it has never seen. These irreconcilable evidences, this failure of reason concerning the recognition of a sensation not previously felt, implies a very peculiar anguish, and then the subject meets with the queer sensation which I am going to set forth and analyze in the following paragraph.

b. *Description of "Things Previously Seen."*¹

One should not confine "things previously seen" either

¹See "La Sensation du 'déjà vu,' sensation 'du déjà entendu,' du 'déjà éprouvé,' illusion de fausse reconnaissance," *Journal de Psychologie normale et pathologique*, 1904, t. I, No. 1.

with reminiscence (in which there is no recognition, but on the contrary an ignorance of the mnemonic origin of the impression), or with the "things previously seen" of alienists, which are hallucinations of O. Thus, a patient of Arnaud detected in his memory remembrance of a suspended locomotive after an accident that happened at Montparnasse Station (i. e. he recognized a thing that he had never seen, either consciously or unconsciously). This incident represents the "palingnostic" delirium of Mendel, in which a patient imagines he recognizes in what he sees for the first time in a *milieu* absolutely new objects, and individuals that he would have previously known, and a *milieu* in which he might formerly have been placed.¹ This case belongs to alienation, and I need not deal with it here.

On the contrary, physiological "things previously seen" are really facts of lower psychism. They cannot be described better than by quoting this passage giving a personal observation by Paul Bourget which I am permitted to print here.

"The feeling of erroneous recognition is quite familiar to me. It usually happens as follows: Somebody utters a sentence, and before it is complete, I have a sudden and irresistible impression that I have already heard those very words as spoken by the same person with an identically same stress of voice. My illusion goes even farther. I immediately imagine I have already heard the answer which I have had no time yet to utter. Or to speak more precisely, I am under the impression that I have already emitted the sounds which I am going to express, and this while I am expressing them. It is then, while I am speaking, that my illusion is at its height. I suddenly imagine that this sentence and my answer imply emotions that I

¹Séglas, "Traité de Pathologie mentale de Gilbert Ballet," p. 270.

feel no more. It is as if a whole world of feelings, having occurred to my heart, were to occur again; they do not come forward, and still I feel them. I am seized in spite of my efforts with an anguish familiar to my most frequent dreams; i. e. to see living and moving a friend whom, even in my dream, I know to be dead. Likewise, during those instants of erroneous recognition, I know that the words spoken with the person I am talking to have never been expressed on a previous occasion. I know above all that my emotional relations to this person are actual, and I feel that those words have been spoken. This duality of irreconcilable evidences is acting in the field of my conscience during a moment which is generally quite short, though it seems infinitely long to me. Then the phenomenon comes to an end and I have the same physical sensation as when getting out of a fit of complete absent-mindedness."

c. Psychophysiological Analysis of the Phenomenon.

My opinion is that in all these facts, or at least in most of them, recognition is real. The subject rightly recognizes an impression perceived before. But this impression, having reached the memory at large at a moment when the polygon was disaggregated, the person has not perceived the coming of the remembrance and fails to understand how this impression has reached his brain for the first time. As Fernand Gregh¹ remarks: "You feel that you are living a minute previously lived by yourself, but you are unable to place it definitely in the past."

Regarding phenomena of this kind, Jules Lemaître²

¹Fernand Gregh quoted by Leroy, "Etude sur l'illusion de fausse reconnaissance (identificierende Erinnerungstauschung) de Kröplin, chez les aliénés et les sujets normaux." Thèse de Paris, 1898, No. 655.

²Jules Lemaître quoted by Charles Méré, "La Sensation du 'déjà vu,'" *Mercure de France*, 1903, t. XLVII, p. 73.

rightly observes: "Our intellectual life is mostly unconscious. Objects make continuous impressions which we do not perceive. They are stored within us unknown to us."

In a recent book Dromard and Abbès have expressed ideas concerning illusions of erroneous recognition, which I deem to be interesting to compare with those I have just set forth. "Invagination of attention" is what they call a condition of absence of mind in which O is not heeding the outward, being engrossed by an introspective observation. They add: "In such a state of invagination of attention, what is it that is going to occur in the presence of a condition of M? Usually the lower psychism (polygonal centers) would gather a series of sensations supplied by M, and the upper psychism (center O) would accordingly convert such sensations into perception, which would involve a conscious representation of M together with a feeling of adaptation or effort for taking possession of reality. If such should be the case, there would be no more cooperation between both psychisms (center O and polygonal centers) for taking possession of M. The lower psychism (polygonal centers) is storing the representation of M without help of and unknown to O. The upper psychism (center O) is engrossed, as we are aware of, by introspection and cut off from reality. The distinctive mark of the representation thus stored is automatism: i. e. it is accompanied by no feeling of effort in view of an adaptation of the Ego to the non-Ego. During that time the upper psychism (center O) uses its activity contrary to what may be observed in a dreamer's mind. But instead of adapting to M this activity it adapts it on the image of M, gathered by the lower psychism (polygonal centers) in the conditions above mentioned and with the marks just pointed out.

"Thus the operation observed as a whole implies two elements: *a.* presence in the subliminal of a representation

of M as stored exclusive of any effort of adaptation; *b.* application of conscious activity to this representation of M.

“In short, we have on one side automatical fixation of representations, and on the other side application of a conscious activity to those representations. Such are the elements on which most likely depends, in our opinion, the illusion of things previously seen. Such conditions are fulfilled in certain states of absence of mind, when those states induce in an unconscious manner a kind of invagination of attention instead of ceasing merely by a recurrence of normal activity of mind.”¹

44. PATHOLOGY OF POLYGONAL MEMORY.

The various phenomena of polygonal memory I have just spoken of correspond with physiological or at most extra-physiological conditions. The pathological conditions of polygonal memory may also involve phenomena which an incomplete survey formerly placed within the range of occult and mysterious facts.

a. Polygonal Hypermnesia.

I do not think that the total of memory can be increased in a pathological condition. There is no pathological hypermnesia that can be generalized and made real. But in certain conditions of generalized paramnesia, disease may bestow on polygonal memory a morbid predominance. We must understand in this way hypermnesia as suggested during hypnosis. Besides, in any case, the faculty of polygonal memory is not increased. In such polygonal hypermnesia an easier revival or a sounder fixation only is possible.

b. Total Amnesia with Preservation of Polygonal Memory.

Polygonal memory may be preserved in general amnesia.

¹Dromard and Albès, “Essai théorique sur l’illusion dite de fausse reconnaissance,” *Journal de Psychologie normale et pathologique*, 1905, p. 216.

At waking time the subject offers the same particulars as one suffering from general and total amnesia; but, should it be possible to survey him in a condition (either spontaneous or provoked) of hyperpolygonal disaggregation, he will utterly differ from others. The remembrance, which seemed to be completely expelled from his brain, is detected and revealed within his disaggregated polygon. It is consequently possible to arouse in the mind of those suffering from amnesia remembrances that had faded away by questioning directly their emancipated polygon—for instance, during sleep or during fits of hysterics, automatical handwriting, or hypnosis.

Pierre Janet cites the case of a female patient who, being questioned as to the name of the house-surgeon, did not know it. During a conversation her attention was engrossed by some other topic; a pencil was placed in her hand. She was requested to write down the name of the house-surgeon, and she did so accordingly. Everyone has sometimes forgotten the right spelling of a word and found it again by writing it automatically.

The most typical instance of this phenomenon is the case of a patient dealt with by Charcot¹ in his lecture of December 22, 1891.

After a violent fit, provoked by an emotion on August 28, 1891, she forgot all that had happened since the evening of July 14 (a case of retrograde amnesia). She could not register or preserve any remembrance. Indeed, the facts she so quickly forgot at waking and which she was unable to make appear within her consciousness, she had really registered. As a proof of this it was found that she was able to recall them at night during sleep. She had been watched by two patients next to her bed, and information had been

¹Charcot, "Sur un cas d'amnésie rétroantérograde probablement d'origine hystérique," *Revue de Médecine*, 1892, t. XII, p. 81.

given by them that she used to dream aloud. During her dreams she sometimes alluded to facts that had occurred on previous days. She thus recalled in her sleep facts that she failed to remember at waking. But the best proof was as follows: this woman, on being hypnotized, found again, in the hypnotic sleep, any fact that had happened up to that time. All reminiscences thus registered come to life again during hypnosis, combined, systematized, without any interruption, so as to make a continuous course and a kind of second Ego, but a hidden, unconscious Ego, quite different from the usual Ego whose total amnesia is well known to you.

Bernheim¹ had before established that it is possible to arouse during hypnosis remembrances that seemed to have absolutely faded away.

He has shown that it is in the same manner possible to recall negative hallucinations, i. e. to blot out during hypnosis amnesia previously suggested. If led in this direction the subject will remember all he ought not to feel, or see, or hear. It may be easily gathered how, before such investigations were made, owing to little power of imagination, one was inclined to see in those facts proof of an occult influence or of a mysterious fluid.

c. Polygonal Amnesia.

Finally, in certain circumstances, amnesia may exclusively affect polygonal ideas. The lower psychical life is much disturbed in such a case, while the upper psychical life, which is conscious and voluntary, may be acting quite right. Pierre Janet is right when he asserts that in such amnesia the hysteric does not become stupid as he ought to do, and as he would should he suffer from total amnesia.

¹Bernheim, "Hypnotisme, Suggestion, Psychothérapie," 1891, p.133.

The intelligence and reasoning are preserved, although the intellectual operation is usually connected with the preservation of memory. In O the upper intelligence is untouched, because in those cases amnesia is exclusively polygonal.

CHAPTER VI

POLYGONAL IMAGINATION AND THE CONNECTION OF IDEAS—POLYGONAL MEDIUMS AND NOVELS

I. POLYGONAL IMAGINATION AND THE LINKING OF IDEAS.

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46. *The polygon and inspiration.*

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47. *The exteriorization of polygonal ideas.*

48. *Definition of a medium.*

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I. POLYGONAL IMAGINATION AND THE CONNECTION OF IDEAS

45. GENERAL DEFINITIONS AND ANALYSIS.

It is impossible to assert with Claparède¹ that association always means "association of facts of consciousness." One

¹Claparède, "L'Association des Idées," Bibliothèque internationale de psychologie normale et pathologique, 1903.

should say "association of psychical facts. For if there is an association of ideas and images stored within consciousness, there is also an association of ideas and images stored within the polygonal unconscious centers. This polygonal association is subject to the same principles as the upper association, and establishes the personal activity of the lower psychical centers.

Neurones do not remain passive in the presence of ideas and images that come from outside. Stimulated by a new idea or image, the centers evoke within memory remembrances somewhat related to the stimulating impression. The centers are the elements of association as well as the means of heeding and remembering. Ideas and images do not attract one reciprocally as the magnet attracts filings; the personal nature of the subject is interfering with the function. Claparède with reason found O "quite inadequate." Rabier's opinion is that the origin of association lies in preceding ideas. He termed this active element a "power of association" on which the evocation of a new idea in any case depends.

As regards imagination nobody any longer denies the personal activity of the neuronc centers. Neither is any one still inclined to accept imagination solely as a "mental imagery." Bain finds in imagination "constructiveness, a function either plastic or poetical, according to the etymological sense of the term." Ribot¹ investigated creative imagination. Dugas² inferred that imagination was the cooperation, uneasily performed, of two distinct elements, the power of objectivation and the power of combination.

¹Ribot, "Essai sur l'imagination créatrice," Bibliothèque de philosophie contemporaine, 1900.

²Dugas, "L'Imagination," Bibliothèque internationale de psychologie normale et pathologique, 1903.

Imagination in fact consists of two elements: objectivation and creation. I have already afforded proofs of association of polygonal ideas or images, and polygonal imagination in absent-mindedness (as in the botany student), in sleep (as in dreams), in hypnosis,¹ and in somnambulism.

Here is the unconscious or polygonal association which explains the association termed *mediate* or *latent* (Hamilton).

Hobbes relates that, while a conversation was going on about the Civil War in England, some one suddenly asked the value of a certain Roman coin—a denarius. The link connecting both ideas (i. e. the Civil War during the reign of Charles I when Charles I was betrayed by the Scotch people for £200,000, and Jesus Christ who was betrayed by Judas for thirty denarii) was seen when after meditation for a few moments the correct answer was given.

Féré reports that a man laboring under migraine had associated the idea of Joan of Arc with the word biscuit; this term had successively aroused the idea of plates of biscuits placed as superimposed quadrilaterals. Then came the idea of a funeral pile, and lastly that of Joan of Arc.

¹Charles Richet (*L'Homme et l'Intelligence*, p. 178) said to a female patient of Beaujon Hospital: "Come with me. We are going out to travel." And then, she "successively described the places she went through, the galleries of the hospital, the streets which she passed on her way to the station, which she finally reached. She did not know all the places, but she indicated their particulars with sufficient accuracy; her imagination and memory equally stimulated, represented them to her under real aspects. Then, she was abruptly carried off" to a remote place which she had not seen—the lake of Como for instance, or the frozen countries of the North. Her imagination being unchecked was given to concepts that were not absolutely lacking in charm, and were interesting, owing to their factitious precision. We were constantly surprised at her perceiving so quickly erroneous sensations."

Does it not occur frequently to us when thinking of some one that we see emerging suddenly the figure of another individual, and we very well realize that a kind of likeness is the basal cause of the association? But we are unable to detect the common mark which constitutes this likeness, or at least it is only after a while that we find it out.

With these mediatory associations may be compared the phenomena of synesthesia which are sometimes the result of a subjacent association whose mediatory link would be effective according to Flournoy.

46. THE POLYGON AND INSPIRATION.

Polygonal imagination is so real, and plays so important a part in psychical life at large that some philosophers have been inclined to make it the basis of inspiration. Ribot uses the term, "unconscious factor" of the imagination for what in common language is called inspiration. Those advocating such doctrines have been peculiarly surprised at the suddenness that marks the coming of the impression, as well as at the accompanying unconsciousness. It seems to the inspired subject that he receives an outward message, so that he frequently exteriorizes its origin—for example in using the symbol of the Muse.

The same authors very strongly insist on the part sleep plays with certain subjects, and cite for instance with Chabaneix, Tartini, who, hearing during sleep the devil playing unto him the famous "Sonata of the Devil," wakes up and writes it down; or Schumann receiving from Schubert the theme in E-flat major; or Coleridge writing poetry during his sleep. Mozart, in describing his mode of composition, says, "All that (the intervention and execution) occurs to me as a very distinct and beautiful dream." Ribot develops this theory, saying that inspiration "resembles a ciphered message transferred by unconscious

activity to the conscious one, which translates it." He concludes that "what seems to be acquired is that a certain geniality, or at least opulence of invention shall depend on subliminal imagination rather than on the other, which is superficial by nature and promptly exhausted. Inspiration means unconscious imagination and is a peculiar form of it. Conscious imagination is an agent of improvement. Despite the authority of its apologists, it seems to me that this polygonal doctrine of inspiration somehow throws down the respective features of both psychisms.

No doubt there is constructiveness and creative work in polygonal activity; the romances of mediums, which will be discussed further, give proof of it. Polygonal imagination is also complete in itself; that is to say there is an element of association, objectivation and creation. But its distinctive mark is disfigured when it is given the first and exclusive part in inspiration.

The two great attributes of suddenness and impersonality cited by authors to establish the unconscious nature of inspiration prove nothing either for or against the polygonal theory. These are mysterious elements that may be unfolded in both psychisms—in the lower psychism as well as in the upper one. They are new and quick associations whose structure we do not perceive. Ribot points out certain queer habits in some authors as acquired in order to make inspiration easy.¹ And he adds: "All those processes have the same object in view: making a peculiar physiological condition, the increase of cerebral circulation in order to provoke or maintain unconscious activity."

¹To walk quickly; to be stretched out upon one's bed; to be fond of complete darkness, or full light; to hold one's feet in water or on ice; have one's head in bright sunshine, make use of wine, alcohol or aromatic drinks of hashish and other substances poisoning to the intelligence.—Ribot, "Psychologie du sentiment" (citat. Chabaneix).

I consent to all this endeavor to make a peculiar physiological condition, perhaps even to the increase of cerebral circulation and to provoking or maintaining psychological activity. But how are we to believe that this stimulates or preserves better unconscious activity? Why would not those various acts as well stimulate or maintain the activity of O and of all psychological activities at the same time? yes

In fact, I believe that physiologically, with sound people, inspiration and creative imagination have for aids, both orders of psychological centers united at the same time into daily cooperation. In most of the clearly investigated cases of inspiration proof is found of such cooperation.

"From this amalgam," says Goethe, "from this mixture and chemistry, at the same time conscious and unconscious, follows finally a harmonious whole at which everyone is marveling." Remy de Gourmont¹ acknowledges the cooperation of both psychisms; he proclaims their unity, owing to which most notable works are achieved, having been first thought of either by volition (O), or in a dream (polygon).

In this cooperation O is creating while the polygon is "ruminating" and contributing mightily to the invention of expression. Ribot describes quite accurately unconscious or polygonal "rumination."

One novel theory, which appears to be quite indefensible, places either in O alone, or only in the polygon, the center of inspiration. Should there be any disaggregation in the inspiration, it is not the hyperpolygonal disaggregation between O and the polygon, but rather hyperpolygonal disaggregation. When an author is engrossed in doing his work he is not cut off from himself. On the contrary he

¹Remy de Gourmont, "La création subconsciente," *La culture des Idées*, 1900, p. 47.

concentrates all his psychical powers. He is solely cut off from the external world.

Therefore, in normal psychism of inspiration and creative imagination, both centers are interfering. Provided you intend to make an analysis of both psychisms, or to establish the distinct part played by each, you must say that O in a person is the symbol of the creative power of genius in the higher thought that it unfolds and expresses.

Besides, according to temperament, the absolute and relative power of various psychical centers is exceedingly unsettled; some have in their polygon an intellectual power much greater than others in their whole psychism. Some are more polygonal; others have still more of O. The part of the polygonal element in inspiration, will, of course be quite different according to the subject's temperament,—whether the person inspired have in excess the polygonal, or the O, or is one having equal powers in both psychisms.

Thus, it may be seen that the analysis of physiological constitutions, classified according to polygonal association and imagination, necessarily completes the survey of the respective part of psychisms in the working of imaginative creation and inspiration.

There is, lastly, a final argument, which is to prove that the polygonal element is not all in inspiration. Should Ribot's theory be real, the acme of inspiration would be found in merely polygonal works, such as those of mediums. In fact, in order to establish his theory, Ribot quotes as an example of subliminal creative imagination, the Martian romance by Helen Smith, the medium of Flournoy. But, in the following paragraphs, we are going to see how trifling and childish imagination is in those cases.

II. MEDIUMS

47. THE EXTERIORIZATION OF POLYGONAL IDEAS.

We have shown above that certain persons are more qualified than others as regards table-turning and willing-game; that every one is not a good spring-finder. This is a first and elementary definition of a medium. A medium is a subject who succeeds more easily than others in occult experiments. In order to make the matter more precise, and to get into the psychophysiological analysis of the medium, we must at first remember the influence of the polygon in the exteriorization of an idea in a given mental process, and also the principles of the eccentric moving of those polygonal ideas.

Paulhan¹ has plainly shed light on the part of automatism in the achievement of a determination. He shows that deliberation and decision are usually distinct from automatism, while in achievement automatism is predominant. If now and then the fulfilment leaves off being automatical, it is because it needs in order to be continued and completed a new deliberation and a new decision. When I have determined to go out of a room the rest follows almost spontaneously. Almost without thinking of it and without a new act of (upper) volition, I put my overcoat on, take my hat, look through the window to see whether I should take an umbrella, open my door, close it again, and go down the stairs. When my decision has been taken, all these phenomena automatically follow in logical sequence and I may say as an organic conclusion.

Inferring from this first principle that any mental process of volition is ready to manifest itself through a movement

¹Paulhan, "La volonté," Bibliothèque internationale de psychologie expérimentale, normale et pathologique, 1903.

or an act, Ribot divides ideas into three groups,—whether the tendency to be converted into acts is strong, moderate, weak, or under certain circumstances non-existent.

First. The first head includes intellectual conditions that are exceedingly intense; ideas “that move us;” i. e., that are accompanied with sensitive phenomena (ideas with emotion, passion).

Second. Under the second head are classified common and ordinary ideas whose power of exteriorization is moderate.

Third. The third group comprises abstract ideas (with the lowest power of exteriorization).

In short, we may declare that the strongest stimuli come from the polygonal psychism. The moderate impulses are given by both psychisms combined, and the weakest from the centers O cut off and working by themselves; or in other words, the polygonal psychism is much more related to the motor act than is the upper psychism.

48. DEFINITION OF A MEDIUM.

It is known that the lower psychism is readily made manifest by acts equally unconscious. But any polygon is not apt, to the same extent, to show such readiness of exteriorization. The medium is a subject whose polygon is more active and more easily exteriorized than other people's; or at least converts its psychism into acts more quickly.

Some polygons exteriorize more quickly and more strongly their inner condition. They are those that succeed in experiments of table-turning and are the best guides at willing-game. Experiments of various orders may be tried with such mediums. Usually questions are asked of them. Their polygon thinks a more or less complex answer, and expresses it, always unconsciously, and involuntarily.

The means used by the medium to express his answer are

many. Formerly the medium was placed at his table, and he may even now be placed there. He answers by using the legs of the table as his interpreters, and the raps knock as an alphabet. But in case of long conversation with experienced mediums, such a process is tedious and uncomfortable with regard to words spoken as well as the interpretation. Such a process is rudimentary. Later a pencil was fixed to the leg of the table, and the medium answered the questions asked by writing through those means, which were too complex. Still later the table was replaced by a planchette furnished with a pencil, which was a far easier way. Some people wrote with a top or other utensils.

Finally the pencil was placed in the medium's hand, and it worked alone, or at least wrote unknown to O of the subject, O being unwilling to it. This is the automatic handwriting quite well observed in hysterics, or in subjects merely absent-minded. It is handwriting through a disaggregated polygon. The medium writes on the right or on the wrong side. He also uses mirror writing. Some others make drawings, their hand wandering at random. The house of Mozart on the planet Mars is sketched in notes of music. In 1876, the *Revue Spirite* presented its subscribers with a mediumistic drawing representing the head of Christ.

The polygonal activity of mediums is not restricted to table-turning, planchettes or pencils. Speech is possible through the polygon. There are speaking mediums who use automatical, involuntary and unconscious speech.

Apart from the writing and speaking mediums, there are also gesticulating mediums. They answer questions by gestures of the head or the hand, or putting their fingers on letters of the alphabet with excessive speed.¹ The type-

¹Bersot, *loc. cit.*, p. 130.

writer is often a serviceable instrument to such mediums. Many of them mimic personages in whom they become incarnate, or whom they embody.

The New York *Herald* has related instances of mediums playing the harp or the piano. The name of a great composer of the past was whispered into the ear of Mrs. MacAllister Spencer of Chicago. She was heard suddenly playing extempore in the departed artist's style. She was sure to get inspiration from the spirit of Mozart. She added: "A little while after I acquired the strange gift of playing extempore on the piano, although I had never learned it, my sister expressed a wish to play the harp. Never in her life had she touched this instrument. My father bought one for her, and she immediately played it as if she had practised it for years. We often play duets, and, without any previous agreement between us, we play extempore in perfect time."

Thus one may see how various and numerous are the means used by mediums in order to exteriorize ideas from their disaggregated polygon. In short, according to what has just been stated, mediums appear as subjects whose polygonal life and activity are notably intense and become easily disaggregated from their upper psychical life and activity.

"When they are perfect," says Pierre Janet, "mediums are instances of partition in which both personalities absolutely ignore each other, and are developing quite independently of each other." This is quite right, but it is perhaps an incomplete statement. The medium's polygon is really cut off from O. It should be added, however, that when the medium is at work, if, on the one hand, O is taking rest, on the other the polygon is exercising great personal activity.

The polygonal activity has been set forth already in several experiments I have quoted. It becomes far more

obvious when the medium instead of merely answering a question, describes things perceived by him. We shall have to discuss this when surveying the "dividing into two" of personality in Section V of this chapter.

Hyperpolygonal disaggregation and remarkable polygonal activity occur therefore to the medium at the same time. The medium's value is in proportion to such polygonal activity. Briefly, the medium is a subject endowed with a lively polygonal imagination, and at the same time with a great power of hyperpolygonal disaggregation.¹

49. TRANCES IN RELATION TO NERVOUS SUFFERERS.

The medium is not constantly found in this condition of hyperpolygonal disaggregation which makes him fit for

¹It is worth while to compare here, with this conception of the medium, the definition recently set forth by Papus ("L'initiation," *Echo du Merveilleux*, 1906, p. 400) by first remembering that the author places the lower, unconscious, or polygonal psychism in the field of the great sympathetic. "Physiologically, the most remarkable feature of the mediumistic condition is the predominance of the sympathetic system over the conscious, nervous system. In proportion as the sympathetic system takes for itself a portion of the power designed for the conscious system, the tension of the centers of organic life increases and the intensity of the cerebral functions diminish. When the taking of power by the sympathetic functions becomes still greater, the working of the cerebral centers comes to an end, and sleep supervenes. What has been termed subliminal consciousness, unconscious intelligence, etc., is precisely the replacing of cerebral consciousness by the intelligence of the sympathetic." In the work of Jules Bois will be found many elucidations of the doctrine of lower psychism in explanation of occultism. "The seer is the maker of his own vision, the diviner of his divination, the prophet of his prophecy. Likewise, in a condition of minor unconsciousness, the poet makes his poem. We now enter into the occult, or rather into what was termed the occult up to now. Those powers originating in the living beings, but disaggregated, unchecked by volition, memory or consciousness, will be, as we are going to see, ascribed to the dead, owing to an error that appeals to our feelings, or because of a shameful quackery." He asserts that the explanation afforded by Myers and Pierre Janet is his own. See also his interview quoted in the *Matin*, March, 1908, and the book of Jastrow, above mentioned.

success in experiments. When he intends to give a séance, he has to put himself in a peculiar condition; he gets into a trance; he somehow divides into two his personality. He momentarily suppresses O and lives, at least apparently, only with his polygon. Charles Richet¹ has plainly delineated this state in passages quoted by Pierre Janet:

“The consciousness of the individual persists as to its apparent integrity. Nevertheless very complex operations are to take place outside of consciousness, without the voluntary and conscious Ego seeming to feel any change whatever. Another person will resist within him, acting, thinking and willing, but unknown to his consciousness, i. e., to his reflective and conscious Ego.

“Such unconscious movements do not happen haphazard; they follow, at least with certain mediums, a logical course that enables them to establish, besides the regular, normal and conscious thought of the medium, the simultaneous experiment of another collateral thought going through stages of its own. It probably does not appear to the consciousness when not externally unfolded through this queer registering process.”

When the medium is thus in a trance his polygonal activity becomes manifest to a most intense degree. Sensations are associated and connected with each other. They are externally made manifest so that the medium gets into hallucinations and exteriorizes them through various movements. Such a condition of polygonal hyperactivity is obviously abnormal and extraphysiological. A whole chapter has been devoted by Pierre Janet to the demonstration of analogies between the trance and the fits of somnambulism either spontaneous or provoked.

¹Charles Richet, “La Suggestion Mentale et le Calcul des Probabilités,” *Revue Philosophique*, 1884, t. II, p. 650, and “Les Mouvements Inconscients. Hommage à M. Chevreul,” 1886.

“At first,” says he, “the generality of mediums, if not all, offer nervous phenomena and are neuropathic when not merely hysterical.”

In my account of haunted houses cited above in which the medium answered questions asked concerning the old woman, it was seen that an interruption had taken place in that case because of a violent fit of hysterics. The young girl was nursed in February, 1902, in my ward of clinical medicine, at St. Eloi Hospital, and my assistant, Dr. Calmette, and myself undoubtedly ascertained that she was hysterical. Three important fits of hysteria occurred in my ward and minor fits of *globus hystericus*, together with spasms, a feeling of strangulation, various and momentary anesthesia with use of sensations not perceived with her left hand anesthetized, so that she could learn the shape of objects and recognize them, a narrowing of the field of vision, dyschromatopsia, dermatography, etc. Pierre Janet quotes numerous analogous instances borrowed from Mirville, Myers, Silas, Baragnon, etc.

Charcot has published an account of a whole family who became hysterical owing to spiritistic habits. He establishes the reciprocal relations of hysteria to mediumship. If experiments in Spiritism are made to involve neuropathic phenomena, one may, through suggestion, reciprocally in certain circumstances, turn a fit of hysteria into a fit of spiritism, accompanied by automatic acts. The change may also spontaneously appear. Fits of spiritism and of somnambulism then get entangled and succeed one another. A medium may fall asleep on the table, and a magnetizer will be needed to wake him.

What is known as electiveness is frequently met with in spiritism as well as in somnambulism. In the same manner as a subject in somnambulism will hear only certain persons, and obey only certain voices, so the medium does

not work before every one and will not fulfil every command. Pierre Janet cites many instances of this.

A good many mediums become insane; this is what Allan Kardec terms "subjugation." Gilbert Ballet¹ has published his observations of subjects who having become spiritualists after a séance, or after having taken advice from mediums, have been led into chronic delirium.²

In fact, the relations between mediumship and nervous disorders are evident. One may say that mediums belong to the neuropathic family³ or, to be more precise, that the medium's trance is graphic, verbal, or gesticulating automatism, in the same manner as somnambulism is ambulatory automatism.

50. ALTERATIONS OF PERSONALITY, MEDIUMISTIC PERSONALITIES.

Alterations of personality are predominant phenomena in the trances of mediums. Nothing relates them better to

¹Gilbert Ballet et Dheur, "Sur un cas de délire de médiumnité," Société médico-psychologique, *Annales Médico-psychologiques*, 1903, t. XVIII, p. 264.—Gilbert Ballet et Monier Vinard, "Délire hallucinatoire avec idées de persécution consécutif à des phénomènes de médiumnité," *Ibid.*, p. 271. (*Revue neurologique*, 1904, pp. 304 and 447.)

²Quite recently newspapers have dealt with the case of a family whose habits of Spiritism led into mental alienation.

³I shall further discuss hysteria and neuropathic imperfections in Eusapia Palladino. Here follows what has been reported by Patrizi (*Echo du Merveilleux*, 1907, p. 324) concerning a new medium, Amedeus Zuccarini, of Bologne: "His neurological countenance is that of a hysterical person. One may even suppose him to be liable, during the night, to epileptoid phenomena. During his childhood, very often his mother found him, in the morning, at the foot of his bed wrapped in his blankets, and this, owing to an unaccountable cause, want of symmetry in his face, which even his photograph now verifies, together with a lesser growth of the left half of the face and related to a difference in the visual function of the eyes. His left-handedness is mentioned or rather his being ambidextrous, besides an exaggerated development of his upper limbs as compared with his stature. His sensitiveness to

the fits of somnambulism or hypnosis. A medium evoked Napoleon's spirit and wrote messages from his dictation: "All of a sudden the medium, who was speaking freely while his hand was writing, ceased abruptly; his face became pale, his eyes had a fixed stare, he stood erect again, assumed a haughty and meditative air, and paced the room according to the attitude ascribed by tradition to the Emperor." Then he lay down and fell soundly asleep. The medium had become Napoleon, i. e., he had been transferred from his own condition of medium to one of those states of somnambulism accompanied with an alteration of personality so accurately known and described according to Charles Richet in artificial somnambulism. Concerning this there is nothing more demonstrative than the following observation concerning Mme. Hugo d'Alési, which is made in order to show the successive incarnations of a medium, i. e., alterations of personality, or objectivations of types, exactly as in artificial somnambulism. Pierre Janet has borrowed this observation from the *Revue Spirite*:

"Mme. Hugo d'Alési is a perfect medium. She readily cooperates with any of the spirits wishing to communicate with us. Owing to her a great number of souls, like Eliane, Philippe, Gustave and many others, have written messages regarding their occupations in the next world. But this lady is possessed of a far more marvelous faculty; she can lend to Spirits not only her arm but also her mouth and her whole body. She can herself disappear, make room for them, and embody them within her brain. For such a purpose it is sufficient to lead her into slumber. A magnetizer manages it. After a first stage of common somnambulism, in which she is speaking in her own name, she remains stiff

pain was low to an appreciable extent. Acknowledgment is made of the hallucinations he has experienced. He has a habit of speaking aloud when asleep."

for awhile and then everything is altered. Mme. Hugo d'Alési is no more addressing us. A spirit has taken hold of her body.

"This is Eliane, a young lady whose pronunciation is slightly affected, a whimsical little thing, a temper that should be tenderly dealt with. Then a new condition occurs; the scene is again changed, and we have Philippe, or M. Tétard, chewing tobacco or drinking ordinary wine; or the Abbé Gérard, who intends to deliver a sermon, but whose head is thick and mouth sticky because of the preceding incarnation; or M. Aster, a rough and obscene fellow, promptly dismissed; or a baby, a little girl three years old. 'What is your name, darling?' 'Jeanne.' 'What do you want?' 'Look for my dad and mamma and my little brother.' She is playing and refuses to go away. Then occurs another scene. Here is Gustave coming in. Gustave is well worth mention. He is requested to produce a painting, as he had been a dauber during his life. 'Listen,' says he through the poor medium still asleep. 'I should want time to make some nice work. It would be too long and you would get impatient while waiting. So often have I attempted to come forth, but fluids are necessary for that purpose. It is rather hard to have intercourse with friends on earth. Up there we are like little birds. I am very sorry to be dead.'"

Pierre Janet incidentally observes that this is a remark common to spirits. The report continues: "Gustave proceeds: 'We have gotten rid of a heap of unpleasant things up here, however. No more office work or early rising; no more boots and corns on one's feet. Besides, my stay on earth had not been long enough. I left exactly when I was beginning to enjoy myself. Should I come back to life again, I want to be a painter and go to the School of Fine Arts; also to make a row with my fellows, and amuse my-

self with little models. This being said, I bid you good night.' Who is coming next to Gustave? Forsooth! the poet Stop will conclude the séance, since Stop is a name quite fit in the circumstances. He is gloomy and his stress is musical when he says: 'My soul sought for Love and did not find it. Had I had a little more time I should have made with it poetry. I know prose is not so fine, but it is late and I have done my best.'"

"After this séance, which was most likely tiresome to her, the medium was aroused, and then we had Mme. Hugo d'Alési as before."

Pierre Janet is right when he asserts that such observations are those of objective types, and alterations of personality as described by Charles Richet and many others, in hypnotism and artificial somnambulism. To such "dividing into two" (dédoublement) of personality or to such formations of new personalities we should join those familiar spirits that are supposed to inspire the generality of mediums. As an example of the fact, a quite important one regarding a medium's psychology, I shall cite first Mlle. Couesdon,¹ who readily and without any effort emancipates her polygon.

"She would speak unto you in a very artless and reasonable manner. Then after awhile she would say: 'I believe my eyes are going to close.' And, in fact, her eyes did close. Her stress of voice was then altered, became deeper, and a psychical personality called the 'Angel Gabriel' was addressing you in a language implying the frequent recurrence of words whose last syllable is é, so as to make false rhymes."

This is automatical language involving echolalia as to the letter é. Mlle. Couesdon considers her emancipated poly-

¹See Xavier Dariex, "Le Cas de Mlle. Couesdon," *Annales des Sciences Psychiques*, 1896, p. 124.

gon as a new individuality, different from herself. She terms it the "Angel Gabriel."

Mrs. Piper,¹ whom I quote as my second example, is a famous American medium, to whom Paul Bourget paid a visit near Boston. She gets into a trance with much more difficulty. He writes of her: "She looses her hair, moans, twists her fingers, heaves deep sighs, has contortions of her chest. At this moment, when she is in a subliminal condition, which is a state of disaggregated and emancipated polygon, Dr. Phinnit is embodied in her body, and replaces her own personality. He uses her organs and speaks through her mouth. Mrs. Piper considers her emancipated polygon, which is acting with its own activity, as the spirit of the departed Dr. Phinnit. Besides, there are friendly spirits whom Dr. Phinnit takes advice of before speaking through Mrs. Piper's mouth. Sometimes some of them would not only inspire Phinnit but take his place within the medium's body. Something stranger is now and then occurring: the disaggregated polygon is divided into two, i. e., partly converted into Phinnit and partly into another spirit. So Phinnit spoke, during certain experiments, through Mrs. Piper's mouth, while another spirit was writing with the right hand of the same medium. Both hands of Mrs. Piper, entranced, have been seen simultaneously writing, guided as they were, each of them by a different spirit, whilst Phinnit used the voice of the same medium. Very singular is this dissociation of polygonal centers into three distinct groups: centers of speech, centers of handwriting with right hand, and centers of handwriting with left hand."²

¹(See Marsa, "A propos des expériences de M. Hodgson avec Mrs. Piper," and Marcel Mangin, "Compte rendu analitique des expériences de Mr. Hodgson avec Mrs. Piper," *Annales des Sciences Psychiques*, 1896, p. 222, and 1898, p. 231.)

²This last, in particular, shows us that we have polygonal centers in both hemispheres. Thus, the right hemisphere is not, as some authors

Such momentary or partial substitutions of an unfamiliar spirit for the usual one may induce change in this spirit. Thus, in 1892 died George Robinson, or George Pelham, a barrister who had taken a wide interest in literature and philosophy. He was an unbeliever and deemed a future life inconceivable. Two years before his death he had told one of his friends that, in case he died before him and should he exist after death, he would do his utmost to prove the fact of such a continuation of existence. Four months after his death, Mrs. Piper was entranced at the home of one of Robinson's best friends. Phinnit declared that George Robinson wished to give a message. After that moment this spirit was present at most of Mrs. Piper's séances, there acting as a second familiar spirit.

The famous medium of Flournoy, Helen Smith¹ (whose polygonal romances I shall further elucidate) has a guide that is a spirit that is manifest to her and connects her through knockings on a table or by direct revelations. In the beginning the only guide was Victor Hugo. He made for Helen trifling rhymes after the style of church hymns, or of "reed-pipe" poetry, that is childish poetry such as the following:

"Do not repel Love, this divine substance and unfathomable mystery. It is heaven on earth! Love and charity will be all of thy life; enjoy thyself and make others happy; but never be proud of it."²

declare, the exclusive center of the lower psychism, nor the left one the center of the upper psychism.

¹See Flournoy, "Des Indes à la Planète Mars. Etude sur un cas de somnambulisme avec glossologie," 1900; "Nouvelles observations sur un cas de somnambulisme avec glossologie," *Archives de psychologie*, 1901, t. I, p. 301; V. Henry, "Le langage martien"; Aug. Lemaître, "Un nouveau cycle somnambulique de Mlle Smith. Les peintures religieuses," *Archives de psychologie*, 1907, t. VII, p. 63. Cf. E. Lombard, "Essai d'une classification des glossologies," *Ibid.*, p. 1.

²These lines of Victor Hugo as an evoked spirit have been opportunely

Then follows a transitory period that lasts for about a year, during which Victor Hugo's influence fails to defend Helen against the irruptions of an intruder called Leopold, who may have been mysteriously connected with the medium in a previous existence.

This stage of the struggle is odd. Victor Hugo is there, and Helen is at rest. But, at once, a spirit is announced; that is Leopold, who says abruptly: "I wish to be alone here and to be the master from this moment." In fact, while Victor Hugo tries to keep Helen awake, Leopold wants to induce her to sleep. Neither pain nor rebukes make Leopold discontinue his intrusion. He teases everybody and takes Helen's chair away from her so that she falls heavily down and her knee is hurt. He assumes gradually an increasing authority and finally supplants Victor Hugo, who disappears, vanquished. In surveying mediumistic polygonal romances we shall meet with subsequent incarnations of Helen Smith's spirit.

These facts evidently prove that in all such cases (on one side, the medium's trance, on the other, fits of somnambulism or hypnosis), the "dividing into two," or alterations of personality, are really polygonal phenomena. As I have stated above, the only real personality is still O, which is always identical with itself. Polygonal personalities are subject to change, according to the inspiration of the moment, or to inward or outward suggestion. They are extra-physiological, or even pathological, personalities.

In all cases in which alienation does not exist—i. e., if O is not disordered in itself—such morbid personalities are constituted by a certain degree of hyperpolygonal disaggre-

compared by Emile Faguet to those written by "Victor Hugo as a medium" (see the book of Jules Bois): "One may infer that anyone at Victor Hugo's house, is a better poet than the spirit of Victor Hugo at anyone's house."

gation, and by various but special conditions of the polygon more or less emancipated from its O. A medium within whom a spirit becomes incarnate, and who is converted into that spirit is a subject whose personality is altered. But as regards hypnotism, the polygonal personality is changed and applies to hypotheses that are successively inspired or imagined. Mme. Hugo d'Alési's center O remains what it was before her trance, and is the same when she wakes up.¹

During trance the medium's polygon successively adapts itself to various hypotheses, lives and realizes in its automatical acts those various hypotheses, and speaks as if the polygon were conducted by the O of a little girl, of a student, or of a poet. My belief is that a survey of these facts would shed light on the philosophical concept of the idea of personality at large.

At first philosophers consider such alterations, or "dividings into two" of personality, as illogical and contradictory. When I say individuality or personality, I mean unity, indivisibility, unchangeableness. In all these phenomena we have been always dealing with "dividing into two," multiplicity and transformation.

Thus, on one side, Duprat² borrows this sentence from Lachelier: "Our Ego cannot really cease to have an identity, but it may cease to appear to us as having an identity." He does not consent to making "a distinction between the nominal Ego and the phenomenal." He says: "The nature of our Self can be altered after a long while, but it is never absolutely changed."

¹Such is not the case when the medium becomes insane, as in the above-mentioned observations of Gilbert Ballet.

²Duprat, "L'Instabilité Mentale. Essai sur les données de la Psychopathologie." Bibliothèque de philosophie contemporaine, 1899, p. 179.

On the other hand Binet¹ declares: "We have long been accustomed by habits of speech, fictions of law, and also by the results of introspection, to consider each person as constituting an indivisible unity. Actual researches utterly modify this current notion. It seems to be well proven nowadays that if the unity of the Ego be real, a quite different definition should be applied to it. It is not a simple entity; but if it were one could not understand how in certain circumstances some patients by exaggerating a phenomenon, which obviously belongs to normal life, can unfold several different personalities. A thing that can be divided must consist of several parts. Should a personality be able to become double or triple, this would be proof that it is compound, a grouping of and a resultant from several elements."

As far as I am concerned, I suppose (and this seems to me to enable us to bring into accord opinions apparently contradictory) that there is in every one of us a polygonal individuality, and an upper one, O. The latter alone constitutes human personality, at the same time moral, conscious and responsible. It is altered or modified in mental disorders only. The polygon constitutes a real individuality, but an inferior one, quite sufficient for creating the morbid personalities which we have surveyed. Polygonal activity is sufficient in playing the part of a general, or an archbishop (after the style of the subject transformed in this manner). Normally, in a physiological condition, both personalities (O and the polygon) cooperate and are mingled in their activities so as to make one and to become inseparable. This makes the normal person.

With patients, or in the physiological conditions I have spoken of, the polygonal individuality appears separate and

¹Alfred Binet, "Les Altérations de la personnalité." Bibliothèque scientifique internationale, 1892, p. 316.

distinct from the upper personality. In such cases there is an apparent "dividing into two" of the personality; in fact it marks the coming of a morbid polygonal personality abnormally separate and apart from the personality O that remains the identical and intangible Ego. The disaggregated polygonal personality may undergo changes; it is not settled and fixed like the personality O.

I believe that this conception of phenomena removes the contradictions mentioned above and will satisfy philosophers as well as medical men.

With Duprat, I acknowledge that the Ego is not utterly altered in such experiments; O remains untouched provided we have not to do with insane people. Like Binet, I acknowledge that personality is divided, i. e., can perceive of one or several new personalities coming forth, which during a more or less prolonged period may act exclusively. At the same time, with Gyel,¹ I believe that dissimilar facts in disorders of personality have been confused, and I separate the facts of "dividing into two" and alternative facts from those of transformation. Anyhow, I think it is unfair, as has been done, that I should be reproached with multiplying hindrances in this matter.

Alfred Binet says: "What becomes of this center O in 'dividings into two' of personality, similar to those of Felida, who has lived for months in one mental condition and then in another? Is it possible to assert that the former of those two existences is an automatical life (polygonal, without relation to O), and that the latter is a complete life (with the polygon and O synthetized)? *Of course not*, and Grasset's perplexity to express his opinion on that point shows us how imperfect his theory is." The "of course not" I have insisted upon (in italics) does not

¹Gyel, "L'être subconscient," 1899, p. 35.

appear to me to be plainly established, and does not appear to be the only possible answer to the question asked by Binet. This distinction between polygonal life and the whole upper psychical life seems to me to be the sole possible explanation of those strange phenomena. The conception of lower psychism helps us to a large extent to understand them. Certainly a good many particulars are still left in darkness by my doctrine, but it evidently does not make deeper the difficulties of the question.

51. STAGES OF MEDIUMSHIP.

We are now in possession of all the necessary elements that enable us to investigate again, in a synthetical manner, the psychophysiological history of mediums so as to analyze and set forth mediumistic psychology. We must in this analysis separate and consider successively various stages of mediumistic life that are summed up in the following table:

PSYCHOPHYSIOLOGY OF THE MEDIUM

1st stage.—The medium makes a table turn, or moves an object when touching it (as a pendulum, rod)—hyperpolygonal disaggregation, quite simple polygonal auto activity, without interference from bystanders.

2nd stage.—The medium is obeying a bystander whose orders he fulfils: the medium's disaggregated polygon is obeying O of the bystander.

3rd stage.—The medium obeys another medium (as in willing-game, and mind-reading by contact). The disaggregated polygon of the first medium obeys another person's disaggregated polygon, the former in the 2nd stage, the latter in the 1st stage.

4th stage.—The medium answers a question: his disaggregated polygon, instead of fulfilling passively an order, answers and acts with its own activity.

5th stage.—The medium answers as in the 4th stage, but his answers, while he is speaking or writing, are far more complex.

6th stage.—The auto activity of the medium's polygon is at its height. There is spontaneity and imagination of the lower psychism with polygonal romances from mediums.

1. FIRST STAGE.

The medium in the first stage is simply making a table turn, or moving an object that he touches. I have already analyzed table-turning. O puts its polygon in expectant attention. The polygon is attracted by the exclusive idea of the movement expected. The polygon readily exteriorizes its psychism, its predominant idea, and is soon pushing the table or leaning upon one side in order to lift up the opposite leg. Having directed its polygon in this way, O has disaggregated itself and is no longer intervening. It does not attend the acts of its polygon and does not register them; it has no consciousness of them, does not control them but ignores them. It is aware of the result only when it perceives that the table is turning.

To this same initial and minor stage belong also the exploring-pendulum and the conjurer's wand. O is always setting its polygon on one idea (the idea of oscillation of the pendulum) or on the idea of rotation of the rod. Then it takes part in it no longer, and the polygon, only through its own powers, using its special knowledge or aptitudes (as with the spring-finder), makes the rod turn, or the pendulum oscillate. This is the first stage in mediumship, a stage in which bystanders are by no means interfering. It is a polygonal, endogenic, or intrinsic art of the medium.

2. SECOND STAGE.

In the second stage the medium's polygon is no longer alone. The bystander is intervening and gives him orders and the polygon is obeying unknown to O. The O of the medium has been disaggregated from its polygon, has given up its control and management as does the medium in the first stage. But instead of first concentrating the whole attention of the polygon on the idea of a movement that is soon to happen, it concentrates it on the idea of an order to

receive passively and to fulfil without any personal modification. The polygon of the medium being thus emancipated and disaggregated from its own O, is waiting for the order.

The order comes and the polygon answers. "Strike" is the word and a certain number of knockings come. "Lift up this leg of the table" is the order and it is lifted up. "Make the table dance," and it dances.

As in the first stage the polygon is obeying directly, automatically, without consideration even internal. It is passively obeying and apparently takes no part in what is occurring. Its O has no consciousness of the mechanism of this obedience whose results it is only verifying.

3. THIRD STAGE.

In the third stage things happen in the same manner. The polygon of the medium is still yielding to another person. But here the other person, instead of being only a bystander, is also a medium, who gives orders through special methods. This is willing-game or mind-reading by contact. Here we have two mediums whose psychology must be separately investigated—a conducting medium who is acting as in the first stage, and a conducted medium who is acting as in our second stage.

With the conducting medium things happen as in the first stage. O is strongly concentrating its polygonal psychism on the problem of solving the polygon disaggregated from O, and transfers its psychism into the fingers so that it is thinking through fingers; it is gesticulating its thought, and unknown to O, it pushes or attracts in one direction or another the conducted medium till the problem is solved.

With the conducted medium things happen as in the second stage. O is disaggregated from its polygon, and is with the conductor medium. But in the present case, in-

stead of concentrating its polygon on an idea, it puts it in expectant attention in relation to orders to be given by the conducting medium. The polygon of the conducted medium is thus guided by the conducting polygon. As a matter of fact, in those three stages the polygon merely obeys, having no activity of its own.

In the first stage (table-turning) and with the conductor in the third stage, the polygon yields to the idea suggested by its own O; in the second stage (a table that is obeying) and with the conducted medium in the third stage, it obeys another person, that is, the whole psychism of the bystander, or the polygon of another conducting medium.

4. FOURTH STAGE.

In the fourth stage there enters another element; this is the autopsychical act of the medium more completely developed. Instead of obeying an order given by a bystander the medium answers the question asked. It is still polygonal and consequently automatical, but it is more intelligent, more psychical and more personal. There is only one medium here. From the bystander there is need for no special aptitude, nor is there need for trance. It is also unnecessary to concentrate or preserve thought. He simply asks a question as he would do of anyone. As for the medium conducted in the third stage, the medium dis-aggregates his polygon from O, and the polygon dis-aggregated, isolated and reduced to its own powers, expects the question that is going to be asked. The question having come, the polygon answers through the table, striking once or twice, whether he means yes or no.

This is still a polygonal act: the medium's polygon answers directly, automatically, with the help of its own psychism, unknown to its own O, which is not conscious of this activity.

The O of the medium simply registers results, and may express as much wonder as the bystanders at the answer of its polygon. Is there a spirit? Is it the spirit of a deceased person? Is the person that was buried now here? The medium's polygon answers; yes or no, without O interfering. So that the medium hears in his conscious O from his polygon that there is a spirit; that the person is dead, and learns where is his grave.

It is thus possible to perceive the autopsychism of the polygon in this stage. The polygon is no longer yielding passively to an order; it is intervening. It answers a question response to which is not inevitable. Its psychical individuality and its own activity are plainly manifest.

5. FIFTH STAGE.

In the fifth stage the medium answers questions by speaking or writing. Frequently his answers are complex. Not only comes yes or no, but sentences. Absolutely the same mechanism prevails as in the preceding stage. But the psychism is here much more complex, although it is still as automatic as any polygonal act, i. e., the medium's O is now more closely related to the experiment than are the bystanders, and it feels quite surprised at hearing what has been written by its polygon. This is so utterly true that the Abbé Almignana "can hardly believe in the abusive language traced by his own hand, and he fails to understand how two beings, so utterly antipathetical, can exist within him."

Pierre Janet cites mediums whom Myers had observed. They were unable to read their own handwriting, and felt compelled to beg of the spirit that he would write more plainly. Or they would make mistakes when reading the message in their own hands.

Thus from this may be gathered how intensely the me-

dium's polygon is disaggregated in those successive stages, and how it manifests to a greater extent freedom and personal activity. Here follows an example of answers made by the medium's polygon in a séance of this stage.¹ The medium is questioned about stars. "Stars," it says, "are exactly like our globe." "Is there any air on the moon?" "There is no air on the moon, else men would have lived there." "But God prevents us from getting out of our sphere." "The inhabitants of the moon—what are they like?" "They are like us, only they are unable to live with air and we cannot live without it." "Are there any inhabitants on the sun?" "Yes." "How is it that they are not burnt to ashes?" "God has provided them with a body that is able to endure continuous heat."

All this is not very clever because the medium lacks knowledge. But there is psychism in it anyhow. He tells all that is known in his defective polygon. This is psychism (lower), although it is automatism.

One should place within the same range many mediums who give medical advice. Questions are asked regarding diseases from which one is suffering. The polygon answers, giving a diagnosis and treatment, in case the polygon imagines itself to possess the necessary gifts. Some others act in a similar manner. They become "merchants of hope" and are bona-fide soothsayers. Questions are asked of their polygon and the polygon, doing its best to consider the case, gives the most likely answer, according to the data at hand. Sometimes the answer may come seasonably and correctly.

Likewise genuine spring-finders, those really qualified for detecting springs, are to be included under this head. Their polygon by its own powers answers the question asked.

¹Surbled, "Spirites et Médiums. Choses de l'autre monde," 1901, p. 36.

6. SIXTH STAGE.

In all that has been previously stated there is a good deal of psychism. But it is always provoked psychism, that is the polygon is acting only with a view to answering questions. In the sixth stage the polygonal psychism of the medium as entranced, becomes even more complex, and most of all more spontaneous.

The bystander asks no questions of the medium, who gets into a frame spontaneously or at someone's request. All possible freedom is then given to this emancipated polygon; it is allowed to say, write or do what it likes. Imagination is a necessity for the medium's polygon if it is to be successful in an experiment of this class. Intelligence and memory formerly were needed in order to conform answers to interrogations. Now, spontaneity and liveliness in associating ideas and images are more requisite.

In this stage the séance is interesting in proportion to the amount of imagination stored within the polygon of the subject. Should he possess a good deal one may obtain momentous results. Bersot reports that in 1853 a tale written by the leg of a chair and entitled, "Juanita," was secured at Guadeloupe, together with a story and other choice works of the same author. The chair was only the speaking-trumpet, or the penholder of the medium's polygon as endowed with a lively imagination.

In order to show how far the imagination of a medium of this stage may go, one should be familiar with the polygonal romances constructed by certain mediums. A survey of them is of so much importance that I will devote a special section to them.

III. THE POLYGONAL NOVELS OF MEDIUMS

52. HELEN SMITH'S ROMANCES.

Helen Smith is the renowned medium of Geneva, who has been so admirably described by Prof. Flournoy in a book already mentioned, and from which I borrow this whole section. Nothing could give a better idea of the extent and limits of mediumistic imagination than the summary of the two prominent polygonal romances of this medium: "The Royal Cycle," and "The Martian Romance."

a. The Royal Cycle.

I have said above how Helen Smith had for her familiar spirit, next to Victor Hugo, a Leopold who was a rather indistinct personage. One failed to know of whom he was the embodiment.

Helen was giving séances at the home of Mme. B., who had long taken interest in Spiritism. Joseph Balsamo was one of the disincarnated spirits that frequently visited her. Balsamo, as is well known, was Cagliostro's real name. A story has been built up regarding him. He was supposed to have been closely connected with Marie Antoinette and to have played a prominent part in preparing the French Revolution. This story has been given credit among common readers, especially owing to Alexandre Dumas's book, an account of which begins with "Les Mémoires d'un Médecin," the conclusion being "Joseph Balsamo."

One day at Mme. B's house, where Joseph Balsamo's spirit was a frequent visitor, Leopold showed Helen a decanter. Mrs. B. immediately thought of the famous scene in Cagliostro's life—"The well-known decanter scene between Balsamo and the Dauphiness at Taverney Castle,"

and offered Helen an engraving cut from an illustrated edition of Dumas representing that scene.¹

One may guess how this scene, which is a work of mere imagination on Alexandre Dumas's part, could strongly impress those who consider the soothsaying nature and supernatural features of it. At the very time when she showed Helen this image, Mme. B. expressed the idea that Helen's guide (Leopold) might be the spirit of Joseph Balsamo under an assumed name. In fact, a little later, Leopold said through the table, during a séance, that Joseph Balsamo was his real name.

As a consequence Mme. B. observed that Helen must be the embodiment of the medium of the great soothsayer Cagliostro—Lorenza Feliciani. For a few weeks, indeed, Helen believed herself to be such. But later on another lady proved to Helen that such an embodiment was impossible, as Lorenza Feliciani had existed only in Alexandre Dumas's imagination. Afterwards, through the table, Helen asserted herself to be, not Lorenza Feliciani, but Marie Antoinette.

So begins the story of the royal romance of Helen Smith. Such a beginning and this genesis of a double personality, Joseph Balsamo and Marie Antoinette—through the series of suggestions they contain are instructive and charming. In this initial period the mediumistic story resembles a story of hypnotism; the trance in the beginning was similar to a séance of suggestive hypnosis. But afterwards the polygonal imagination of the medium appeared as more personal and threw off all restraint.

All this would be worth mentioning in Helen's "Royal Romance," in order to establish the power of the polygonal activity of a medium and the limits beyond which this ac-

¹I have mentioned this already as an example of crystal vision.

tivity cannot go. Leopold appears to Helen as attired after the eighteenth-century style, with a countenance resembling that of Louis XVI. He is in his laboratory with his alchemy utensils, and looks like a sorcerer or a physician selling secret elixirs to the sick, and talking poetical philosophy in an ignorant manner that reminds us of Victor Hugo, his predecessor.

At first he talks through the table, and then as per advice of Flournoy, with his hand or his finger. Then he dictates messages to Helen, who writes them out. Finally he writes directly through Helen's hand. He writes according to the spelling of the eighteenth century, using "o" instead of "a" in "j'aurais." Then he speaks with Helen's voice, which assumed a deep and hollow tone with an Italian pronunciation. At those moments Helen is seen proudly standing up, or even throwing herself back, having her arms either set across on her breast in a majestic manner or one of them hanging along the body while the other is lifted up towards the sky, her fingers making a side sign always the same.

On her chimney Helen has a portrait of Cagliostro in this attitude, with extracts from a book on Balsamo's life. In speech she has a burr and lisp; she pronounces "u" like "ou"; uses obsolete words: "fiote" instead of "bouteille," "omnibus" for "tramway." Her eyelids are generally shut. She lifted them, however, when her photograph was taken in the flashlight.

Flournoy took the trouble to seek out Balsamo's manuscripts and signatures, and has shown absolute differences perceivable between them and the handwriting of Balsamo as embodied by the Leopold of Helen Smith. These autographs were published by Flournoy. In her speech Helen well imitates the Italian accent. Her father, who was Hungarian, was a polyglot, and often talked Italian with

friends. But Balsamo as Leopold refused to answer questions when asked in Italian. Helen did not know this language. As to the Balsamo-Leopold medical prescriptions, they were only popular remedies in which Helen's mother was very much experienced.

Such was the first part of "the beautiful subliminal poem"¹ (according to Flournoy's expression), as constructed by Helen within her polygon as entranced. Next comes the second character—Marie Antoinette. At first the incarnation was made manifest solely through the ordinary language of the table. Later, Helen embodied the queen in speechless pantomimes whose meaning was indicated by Leopold through digital signals. In the following year (for all this evolution was slow) she spoke as she played her part, and again one year later.

One should, in Flournoy's opinion, always divide this incarnation into two groups of phenomena, or features—*first*, objectivation of the general bearing of a queen, or at least of a majestic lady; *second*, realization of the individual features of Marie Antoinette of Austria.

The first case is satisfactory in nearly all respects. It is evident that Helen's polygon has its own view of a queen and expresses it quite right. It is interesting to notice the gracefulness, elegance, refinement and, at times, majesty that are visible in Helen's attitude and gestures. Her walk

¹At that time, a song prevailed at Geneva whose title was: "The deeds of the subliminal," the tune being after Béranger's song: "Hommes noirs, d'où sortez-vous?" The initial verses of this song were:

The hypothesis of Flournoy

Upsets me and makes me perplexed.

According to him, man would have a second Ego

Very complex by nature.

This subjacent Ego would outdo the natural Ego.

This is astonishing. It would disguise itself and change its sex.

Indeed, this is not common for an Ego.

This queer fellow has been termed "the subliminal."

is really like the walk of a queen; her hands are playing with a real handkerchief and fictitious accessories; a fan, a long handled double eyeglass, the smelling bottle placed in her girdle, her bows, her easy bearing when throwing back the train of her gown.¹

Would not one after this believe the scenes of suggestion and of personality suggested in hypnosis, as so perfectly surveyed and described by Charles Richet and many others?

The objectivation of this particular queen, Marie Antoinette, is far less perfect. Flournoy has printed autographs by Marie Antoinette, and manuscripts ascribed to the same queen as embodied by Helen. There is no likeness whatever between them.

But (and this is a prominent feature of a very intense polygonal psychism), Helen writes: *instans, enfans, etois*, according to the spelling of the eighteenth century. Helen speaks with a foreign accent; rather an English accent than an Austrian one, while she embodies Marie Antoinette.

Besides (this is another queer particular), when awake in any other condition than the condition of a queen, Marie Antoinette's handwriting, spelling and stress of voice may be momentarily introduced into another life. Helen's polygon makes also historical blunders which must be excused.

The day before her death Marie Antoinette, as Helen, when confined in her cell, addresses touching exhortations to a lady present whom she imagines to be the Princess de Lamballe. This princess had been killed three months previous to that date.

Many scenes usually take place at the Petite Trianon. The furniture described is constantly of the best Louis XVI period. The interlocutors are at first Balsamo-Léopold, "my sorcerer," or "that dear sorcerer"; then Louis-Philippe

¹Better than "Madame Sans-Gêne."

d'Orléans (Egalité), or the old Marquis de Mirabeau whom she perceives to be really embodied in two persons present, M. Eugène Demole, and M. Auguste de Morsier. She sees one of these gentlemen. "Well, Marquis," says she, "you are here and I had not seen you before." She then begins a conversation with them all. They do their best to play other parts. She eats and drinks with them.

One day she goes so far as to accept a cigaret from Philippe Egalité and smokes it (a thing she never does at waking). A bystander observes that this is an unlikely practice, which has probably been indulged in by Marie Antoinette since her death. She subsequently accepts tobacco but only from a snuffbox. Sometimes gentlemen would set snares. Should these snares be gross she eludes them very skilfully. Thus, in case Mirabeau or Egalité is talking to her about the telephone, bicycle or locomotive, she looks astounded, and this with great simplicity; she expresses anxiety as to the mental condition of her interlocutors. But she does not escape from little mistakes more difficult to detect. She uses the expression, "to run off the track," in its figurative meaning, or "meter" and "centimeter." It is only after a while that she wonders at the words "tramway" and "photograph." At first she let them pass by. Like the hypnotized, Helen sees these gentlemen only; she fails to perceive the other bystanders. Still, she keeps away from them when walking, as somnambulists do.

I shall quote a few more scenes from this royal romance of Helen. In these the medium Marie Antoinette, Helen evokes our great Barthez. Barthez had the title of physician to the Duc d'Orléans (the father of Philippe Egalité), and the merely honorary title of consulting physician to the king. It is very unlikely that he ever met Marie Antoinette, and most of all that he ever was in love with her. When he

appears in Marie Antoinette's company during Helen's séances, he recalls the days when he watched the coming of the queen on the Boulevard du Temple, and he keeps on repeating: "Where are those days when, toddling along the Boulevard du Temple, I had but one aim and wish; it was to have a look at your coach and glance at your profile? Where have they gone, those happy moments in which my soul was so utterly enraptured?"

It seems that, when personating Barthez, Helen is rather thinking of young dandies, who, in the streets of Geneva, follow the shop-ladies, than of the great chancellor of the University of Montpellier. She even lends him her style of speech; for "so utterly enraptured," are words found in Helen's correspondence, but not in the books of Barthez. Lemaître has taken the trouble of comparing the writing of the mediumistic messages ascribed to Barthez with genuine autographs of that physician as furnished by Kuhnholz-Lordat, the adopted son of Lordat. No likeness whatever has been found in them.

According to Lordat, Barthez had an ordinary stature. In her visions Helen sees him rather tall. She signs Barthes, whilst his name was Barthez. This might be explained by admitting that the learned doctor had forgotten the real spelling of his own name, as he has been dead about a century.¹

There is a good deal of intelligence, and apparent invention and creation in this royal romance. Perhaps there is much more of it in the Martian romance so accurately scrutinized by the same Prof. Flournoy.

b. The Martian Novel.

This is a romance with its scene on the planet Mars. Everyone knows how much that planet was dealt with in

¹Barthez died in October, 1806.

1892. It had been repeatedly wondered whether there were inhabitants on it, and the question of possible subsequent communications with its inhabitants had already been much discusst. In publications (widely read at Geneva and among Helen's relations) Flammarion had discusst the conditions of life on Mars, and had prophetically described the future wonders of communications between the inhabitants of the earth and Mars. Very much spoken about even at that time were the famous canals on Mars, and the inundations on that planet. All this was a common topic in Helen's circle.

In 1894 Helen gave séances at Prof. Lemaître's before a lady whose eyes were grievously defective. This lady having lost her son Alexis three years earlier, wishes to evoke him. In the first séance Alexis is announced accordingly, coming in company with Raspail, who prescribes camphor treatment for the mother's eyes. The camphor treatment is advised in Raspail's "Manuel de Santé." The following month, in the beginning of her trance, Helen perceives far away and at a considerable height a bright glimpse; then she is rocking in a dense fog which is at first blue, then dark pink, gray and black. She is floating, and after that she sees a star whose size gradually increases. Finally the star becomes bigger than a house. Later she feels that she is lifted up, and the table says: "Look here, Lemaître, here comes what you so much longed for!" Helen, quite uneasy, is feeling better; she sees three enormous spheres; one of them is magnificent. She asks herself: "On what am I treading?" And the table answers: "On a sphere, on Mars."

Thus was fulfilled what had been for Lemaître the dream of the previous summer, when he said to some one among Helen's relatives: "How interesting it would be to know what is occurring on other planets!"

Helen describes next all things visible to her on Mars: carriages without horses and wheels and which by gliding throw out sparks; houses with jets of water playing on their roofs; a cradle whose curtains are an angel made of iron, with wings unfolded. The people are quite similar to us except that both men and women are attired in long blouses with the waist brightened and trimmed with ornaments. Raspail, in a vast hall, is giving a lecture; Alexis is in the first row of hearers.

Such, according to Lemaitre and the lady with the sore eyes who had lost her son, was the origin of this Martian romance, which extends over the long period of fifteen months of polygonal meditation. Raspail then disappears and at the same moment Alexis comes to the foreground. He had spoken French before, but now understands it no more; he talks only the "Martian" language.

In a first séance Helen converses with an imaginary woman, who tries to make her enter a queer little wagon without wheels or horse. This woman expresses herself in a strange dialect. Léopold, still present, like a crony or a music-hall "revue," explains through his finger that "this is the language spoken on the planet Mars. This woman is the actual mother of Alexis reincarnated on that planet, and will herself speak Martian." Helen jumps on a car. She reaches Mars, and gives account of the welcome accorded her on her arrival, or rather she mimics it with "odd gestures of hands and fingers; fillips of one hand on the other; slaps of fingers on the nose, lips or chin; distorted or gliding bows, and rotation of feet on the floor."

The romance continues to go on and contains very touching episodes. For instance, the mother of Alexis sees him through Helen; she kneels down and moans before her. Her son, through Helen's mouth, comforts her in Martian language with gestures so soft, and a stress of voice so ten-

der that the poor mother is utterly overcome. Helen describes and sketches¹ Martian landscapes (her drawings are reproduced in Flourney's book)—a pink bridge; yellow stiles immersed in a blue and pale pink lake; reddish banks and creeks with no verdure at all. All trees are brown, or violet-colored, or purple.

She describes and sketches the inhabitants on Mars; Astane, for instance, her complexion yellow, her hair dark brown. She wears brown sandals; she holds a white roller in her hand. Her costume is striped in gold, red and blue. The edge and girdle of her dress are brown.

Then is found "the vague and nameless crowd" that usually occupies the background in Martian visions—different from earthly multitudes solely as to the ample robes worn by both sexes, the flat hats and fencing shoes fastened with straps. The people have at their disposal instruments (described and sketched by Helen), making yellow and red flames. They use them to fly with through the air. She also makes a drawing of Astane's house. A series of images shows us specimens of the flora of Mars. There is no green at all. Their shapes as well as those of the trees in the Martian landscapes show the vegetation up there is not absolutely different from ours. Still nothing plainly imitates any sample of ours.

What has been most interesting in these experiments, and I insist upon it, is indeed the Martian language so perfectly investigated and analyzed by Flourney and V. Henry. In the beginning this dialect is rough and wrongly made up. It is a "pseudomartian language"; a balderdash, a childish counterfeiting of French. In fact it retains from French in every word the same number of syllables and some promi-

¹In her most recent incarnation (described by Lemaître in his work already quoted) Helen has strongly improved and better exerted her abilities.

ment letters. It is analogous to the gibberish used by children when they imagine they talk Chinese or Indian. Half a year is necessary for "the subliminal making-up of a language properly so called." When the Martian dialect was made up, it was necessary in order to understand it and have a translation to provide a dictionary. Flournoy wrote to Léopold for this purpose "a letter in which with considerations about the high range of thought in the phenomena presented by Mlle. Smith," he appealed to him and his knowledge for a few hints concerning that strange language. Two days later Helen, entranced, wrote automatically an answer in eighteen alexandrine lines. The conclusion was as follows:

"When his unsteady soul has taken wings; at the moment when he will be looking down on Mars and its magnificent colors, in case you desire to get explanations from him, place softly your hand on his pale forehead and whisper Esenale's sweet name."

This was done accordingly and Esenale (such was the Martian surname of Alexis as reincarnated) when thus called upon in Martian visions, translated words and sentences. The construction of a Martian language, to be complete, required a special handwriting with special letters, which after many improvements were fixed upon definitively, or at least for a long while. Every letter has its equivalent in our own alphabet.

Flournoy has thus patiently reproduced, translated and analyzed forty-one Martian texts. He has been able to come to the conclusion that Martian is nothing but a puerile imitation of French.

One should first notice that in this relation Martian is a language and not merely a jargon, or a lingo of any sounds whatever uttered haphazard. There are words and words expressing ideas and the relation of words to ideas is con-

stant; the meaning of Martian terms is likewise unvarying. The language has its own consonances, accent, and favorite letters. Thus it is possible to recognize it while Helen speaks it, although it is not understood. As with French, there is superabundance of "é," or "è," and "i." Diphthongs and nasals are quite uncommon.

Therefore it is a language, and one might say "a natural dialect," as it is automatically made up, without any conscious interference on Mlle. Smith's part. It is not a voluntary invention for jest or juggling. But here follows proof that this language is not a new one, but merely a trifling and puerile alteration of French. The Martian language "consists of sounds uttered, and all of them, either consonants or vowels, exist in French." But this is not natural in languages geographically next to ours, and *a fortiori*, in languages geographically quite remote from ours. Peculiar sounds are always to be found that especially belong to each (English, German, Spanish). "The language on the planet Mars does not permit such phonetic eccentricities." When there is a difference it is poorer than French; it is lacking in articulate sounds. Likewise as regards handwriting, all Martian and French letters in accurate correspondence are the same.

Moreover, "a good many exceptions to rule, equivocations and irregularities are usual in Martian; the same letter may have dissimilar pronunciations under different circumstances, and reciprocally, the same word may be written in different ways without any rational cause for such inconsistencies." All this is identical as in French.

In other words, "in that so-called extraterrestrial idiom a great number of peculiarities and caprices are found, which, after due reflection, set at defiance a theory of chance origin, and constitute a sign which it is impossible to misinterpret." This leads to the following conclusion: "Mar-

tian is simply French that has been altered. Should one investigate it through texts known to us, and try to arrange a Martian grammar, it would be seen that the rules of this grammar, if ever published, were simply a parody of the principles of French grammar."

We have in French words that have various meanings; for instance, the preposition "à," and the verb "a"; the article and the pronoun "le." Similar auditory analogies, with no relation whatever to the real meaning, are met with in the Martian idiom. Thus "à" and "a," analogous in sound, but so different in meaning in French, are translated in Martian by the same word, "é"; "le" (article or pronoun) is always "zé"; "que" (used with many a meaning) is always "ké." Still more curious, our word "si" (whose sense is "yes," and "so much") becomes "ii."

The order of words in sentences is absolutely the same in Martian as in French. And this, in the most trifling matters, as in the division or amputation of "ne pas," or a letter brought into Martian, such as "t" in "quand revien-dra-t-il" (Kevi berimîr m'heb).

Such possibilities in juxtalinear translation, and such an absolute correspondence word for word, are "an extraordinary fact—one never known in languages here below." Flournoy observes, "There is not one language in which each term of a French sentence is rendered by only one term (neither more nor less) of the foreign language." Besides, an appreciable proportion of Martian words "reproduce in a suspicious manner the number of syllables or letters of their French equivalents, and sometimes the disposition of consonants and vowels."

It becomes more and more evident that "this fancy idiom is the work of a naïve and somewhat childish imagination (i. e. polygonal) that has undertaken to make up a new language, and though giving its lucubrations odd and in-

edited appearances, has cast them unknown to it in the ordinary molds of the only language that it knew." The words, however, are as different as possible from the French words. The author has provided for a dictionary, but not for a grammar. "The mode of creation of Martian appears as taking French sentences, such as they are, and replacing each word in them by another word, no matter what it may be, and made up haphazard."

In its continuation the story of the Martian romance is still quite queer and satisfies the above deductions.

Flournoy, who is of opinion that he has sufficiently analyzed the Martian language, an examination of which becomes monotonous, discloses to Helen all his objections respecting the genuineness of the Martian dialect and gives his proofs. At first Helen resists, but after a while she answers objections by improving, or rather complicating, her idiom, which she places on another unnamed planet. This is the ultramartian cycle with a new personage, Ramié. Seventeen days after Flournoy's suggestion Helen creates this new embodiment of her beautiful polygonal romance.

The pathogenic influence of suggestions appears obvious here. Flournoy remarks: "I had charged the Martian dream with being only an imitation, a varnish, with bright Oriental colors, of the surrounding civilized world. Now we look at a world horribly strange up there; the soil is black and without any vegetation. Its inhabitants are stupid beings, resembling animals rather than men. I had hinted that things and people up there might be of sizes and proportions different from ours; and I find that they are on that rudimentary sphere pygmies whose heads are twice broader than high. Their houses are likewise queer. I had alluded to the probable existence of other idioms and pointed out the frequent recurrence of 'i' and 'é' in Martian. I had accused its syntax and its 'ch,' borrowed

from French. But now I find a language absolutely new, whose rhythm is peculiar and implies frequent use of 'a' without any 'ch;' its texture is so utterly dissimilar to ours that I fail to find my way in it."

This experiment by Flournoy is really wonderful. It completes admirably his observations to establish that in Helen all is a polygonal romance created and guided by suggestions.¹

53. MME. SMEAD'S MARTIAN NOVELS.²

With the medium, Mme. Smead (this is a pseudonym), Prof. Hyslop has most carefully observed and analyzed another Martian romance in which, like Flournoy, he plainly shows the subliminal or polygonal starting-point. In the present case the interlocutors are the deceased children of the medium. "At first a geographical map was obtained. It was very precise; the names of zones into which the planet was divided were mentioned upon it. The people up there are taller than those on earth and not so numerous. They look rather like Indians. They cut canals from one ocean to another. Ships (*seretrevir*) made of trunks of trees have names on them (*crístiril*). At another time a sketch of a 'temple-house of dogs' was made. Men wore dresscoats and trousers; women sack-shirts and ridiculous bonnets, their hair loose. Men turn up their hair and wear it long under their hats. The planchette traced the drawing of a robe trimmed with lace and flowers printed on it in a symmetrical order. When this sketch was completed a marginal indication of colors was given; it was a series of pink, white, green, yellow, brown and pale mauve tints." A

¹I do not insist upon the other astral romances of Helen: uranian and lunar romances. I deem my demonstration satisfactory.

²"La Médiumnité de Mme. Smead," *Annales des Sciences Psychiques*, 1906, p. 461.

description of a Martian's clock (*Trivenniul*) and one of a strange airship were also given.

"The planchette traced a Martian observatory on the top of a hill through which there were tunnels whose bottom was almost in the shape of a pipe." Hyslop points out a queer coincidence between this drawing and another mentioned in Flournoy's case. In fact, Helen has sketched a Martian observatory with a tunnel. Mme. Smead pretended to ignore Flournoy's book, but this book was in her house. There is no doubt about Mme. Smead's sincerity; it is obvious that she had read it unconsciously, in absent-mindedness. Her polygon had stored its images unknown to O.

Hyslop concludes this part of his work with the following passage, which I take the liberty to quote at full length because it is the very expression of the doctrine of my present book:

"Persons taking interest in psychological and psychical investigations will experience no difficulty whatever in ascertaining the true nature of such phenomena. There is no proof that they are really what they pretend to be. In such conditions the only possible hypothesis is the one related to the subliminal personality (polygonal personality). In the drawings delineated with a planchette, indications ratifying this doctrine are met with even when other proofs are missing. For instance, the mechanical impossibilities regarding airships, the obvious confusion between propellers and rudders; the deficiency at large of such unconscious lucubrations that place on other planets phenomena resembling those of earth to such an extent as to make them suspicious; all this is reason why one should set Martian messages absolutely outside the range of spiritualistic messages, provided better proofs should not ratify their transcendental nature."¹

¹Another French somnambulist, Adèle Maginot, has made polar and

IV. CONCLUSIONS

54. REALITY OF POLYGONAL IMAGINATION.

From this chapter proof has been first offered of the auto-activity of the lower psychism—activity which expresses itself by association of ideas and images, also by polygonal imagination, of which I have offered many conclusive examples.

We have seen the part played by suggestion and exogenic imagination in the origin and growth of mediumistic romances. But once led into this way the disaggregated polygon of the medium being entranced has imagined all the rest by its own powers.

Such polygonal imaginations, so clearly established in mediums,¹ are also occurring in hypnosis and other extra-physiological conditions of hyperpolygonal disaggregation. They are even occurring in a physiological condition, in dreams or in states of crepuscular consciousness.

Miss Frank Miller² has published very interesting facts concerning this matter. Miss Miller, whose mind is exceedingly auto-suggestive and at the same time auto-observing, would have been an excellent medium. The simple sight of a conical cloth over her head "arouses in her a remembrance of Egyptian statues, induces her to a kind of total kinaesthetic hallucination, which is, in fact, the first

lunar excursions which the good woman (who was *lunatic*, indeed), as Jules Bois says, has performed, or rather related, with as much ease as ingenuousness.

¹"What is certain," says Jules Bois, "is the strange power of the medium to gather, vivify, concentrate and personate those scattered residuums of ancestral memory, the dust of the dead.

²Miss Frank Miller, "Quelques faits d'imagination créatrice subconsciente," *Archives de psychologie*, 1905, t. V, p. 36, together with an Introduction by Flournoy.

stage of an alteration of personality." Flourney adds: "As a spirit medium Miss Miller would have certainly believed in the embodiment of a princess (or even of several princesses) of historical and prehistorical antiquity. She would have disclosed to us queer particulars as to her previous existences in Egypt or Assyria."

One should especially read Observation IV, entitled "*Chirvantopel*, a drame hypnotique," which thus begins: "Borderland phenomena, or if you prefer, half-dream cerebral compositions, concern me to a great extent, and I think that a minute and intelligent investigation of them would mightily help to enlighten mysteries and upset superstitions regarding the so-called spirits. This is the reason why I send you a case, which in the hands of a person taking great care for truth, or for not hesitating to indulge in embellishments or amplifications, would have been sufficient ground for a fancy romance comparable with the fictitious cycles of your mediums."

Observation II is the story of a little poem dreamt by Mlle. M. early in the morning, during an excursion on sea. Waking up at the same moment because of a call from her mother, she immediately told that lady her dream. Then she wished to relate it, but during the time which she spent in looking for a pencil, the absence of mind caused already by her mother's presence, was enough to make certain passages vague. A few months later, as she was at leisure, she again took her poem and modified it with the intention of changing it into accurate compliance with the original text she had dreamt. It may be considered most likely that during the intervening time a subconscious work of correction had been done on the original poem, so as to render it in its second text which is far more perfect. Such are creative imagination and polygonal memory and meditation.

In the fragment III, we have "a poetry that arises automatically." It occurred to Miss Miller's mind during a railway journey by night in the special condition intermediate between waking and sleeping, so often experienced by worn-out passengers, always on the verge of falling asleep, but who never lose sight of themselves. The last instance was a sort of short lyrical drama displaying itself spontaneously within her imagination in visual and auditory images, during the hypnotic stage preceding profound sleep.

In his conclusion, Flournoy recalls "a charming study of the psychology of dreams," which is little known, and in which Stevenson confesses that for all he is indebted to anonymous cooperation of a "mysterious little people," the "Brownies," who so kindly sketched the novelist's work, and supplied him, free of charge, with so many ready-made scenes. But, we are serious people, and prefer to replace Stevenson's Brownies, or even the muse of the classical poets, by scientific law, such as mechanical association of ideas, or nocturnal dynamism of neurones, polygonal activity of lower psychism, unconscious factor, or the subliminal, etc. We are thus brought back to the question of alterations and various modalities of human personality, which, owing to observations of irrefutably accumulated facts, will be sufficiently elucidated. Miss Miller has made perfect guesses without applying to hypotheses that are complex and trifling as they prevail in spirit circles.

55. THE LIMITS OF POLYGONAL IMAGINATION.

If all the facts cited above testify to the existence of polygonal imagination, they also establish the limits and inferiority of the same.

a. The Inferior Character of Polygonal Romances.

It has been possible, owing to particulars given regarding Helen Smith's Royal Cycle, and the Martian romances of

Helen Smith and Mme. Smead, to ascertain how such polygonal lucubrations are lacking in originality and newness, and how they are erroneous and childish. Hyslop has plainly established that on planets (and especially on Jupiter, "children's heaven") all messages gotten by the medium "revealed the influence of the instruction Mme. Smead had received in former times. They were probably remembrances of teaching given when she was attending Sunday School, and completed by a puerile imagination concerning the nature of stars."

I have not insisted upon all the contradictions and impossibilities included in Helen Smith's Martian romance. Léopold, on Mars, is at first acquainted with the French language; then he forgets it completely, but later has a sufficient knowledge of it to be able to translate it into Martian. He died in July 1891, and was five or six years old in 1896. But "years on that planet are twice longer than ours." This has been overlooked by Helen, as well as any other scientific question whatever concerning Mars, of which she is utterly ignorant. The famous canals in which astronomers have taken such interest are never mentioned. Nothing is said with regard to biology or sociology on Mars. Up there life is identical with life on earth, and the manners follow ours. There is less difference between Martian habits and our European habits than between ours and the Mussulman's civilization, or the habits of the savage.

What has been told by Flournoy concerning his medium might be applied to all those polygonal romances. They are produced by a young imagination aged about 10 or 12, that thinks quite oddly enough in supposing that people up there are eating from square plates with a little furrow for gravy; that an ugly one-eyed animal is charged with carrying Astane's eye-glass; that it is common to write with a tack fixt to the nail of the forefinger instead of using a pen-

holder; that babies are sucking through pipes tied on the breasts of beasts looking like hinds. Nothing in those romances is analogous to Ovid's "Metamorphoses," "The Arabian Nights," the "Fairy Tales," or "Gulliver's Travels."¹ In this cycle no trace whatever of ogres, giants or genuine sorcerers is to be found. It looks rather like the work of a schoolboy who has attempted to imagine a world, a real one, as different as possible from ours, and has adapted it to familiar frames, as he could not perceive the possibility of an existence constructed otherwise, but, on the contrary, as if he had let his imagination have its own way respecting a heap of trifles, and this, in the limits of what seems to him to be admissible, according to his own narrow and short experience.

b. Inferiority of Polygonal Concepts at Large.

The mediumistic romances whose inferior character I have just established, may be considered the most eminent and sparkling expression we have of polygonal imagination. Ribot cites them as the best examples and proofs of the subconscious, or unconscious, element in inspiration. And still, we have seen of what little value they are.

A fortiori, inferiority is to be detected in any other expression of polygonal imagination, for as soon as polygonal imagination is let loose, it really becomes foolish, "a maker of error and duplicity," as Pascal said.

Most dreams are absurd and illogical. As to hypnosis, we have ascertained how the imaginative powers of a subject are limited when he becomes a preacher in general. In such a case he will embody a very plain Bossuet, or a some-

¹Nothing in those romances is analogous to the queer novels by H. G. Wells, and chiefly his Martian novels, the "Crystal Egg" and the "War of the Worlds." See Charles Derennes, "H. G. Wells et le peuple marsien," *Mercur de France*, March 1, 1907, p. 48.

what ridiculous Napoleon. His creations are always put forth in compliance with the abilities of his polygon. When discussing the spirit hypothesis (see first paragraph of part 3), I shall offer new proofs of this principle. So it may be understood clearly that I mean to ascribe to unconscious psychism only a background part in inspiration and creative imagination, and that I keep on deeming it of a lower class.

At the congress of Grenoble in 1902, Gilbert Ballet—although he thought my distinction between both lower and upper psychism to be of interest—expressed the idea that lower psychism should rather be termed “upper,” as it exhibits an improvement on the upper psychism, and is the coming to a head of the faculties of the upper psychism. A person playing on the piano through his polygon, is much more clever than when playing with his center O. Goudard¹ has said likewise that “This hidden world is continually acting, following its way in a logical direction, parallel to consciousness. Is it really inferior?” Such is also Ribot’s opinion in his theory of inspiration.²

I answer in this way: The education of the polygon is made by O. Consequently O remains superior. The polygonal activity apart, is following the simultaneous activity of both psychisms. But the really creative power, and the authority of censure and condition still belong to O, which remains the upper center of intellectual activity. In short, I may assert that the activity of O is superior to polygonal or automatical activity.

¹Goudard, *Bulletin de la Société d' Etudes Psychiques de Marseille*, 1903, p. 48.

²“In such conditions, it is impossible to say whether, with the average subject and among each one of us, the subliminal part of our personality is really higher or lower than the subliminal part which is known to us.” Henry de Varigny, “Causerie scientifique du Temps,” *Indépendance Belge*, December 31, 1904.

56. THE PRODUCTIONS OF MEDIUMS BY POLYGONAL IMAGINATION ARE EASILY IMITATED BY SUPERNATURAL MESSAGES.

The final and most important conclusion of this chapter is that polygonal imagination may, through its easy action in the medium entranced, cause results so astonishing, apparently so strange, and of an origin so utterly unconscious, that it is possible to deem them exogenic messages originating outside of the subject; and, since it is easy to make an objectivation and materialization of the external cause of a momentous phenomenon, those polygonal romances may be readily ascribed to messages from beyond the grave, or to evocations of reincarnated spirits.

It is absolutely natural for Helen Smith or Mme. Smead to ascribe to real inhabitants on Mars, all the particulars afforded by them when entranced, since they would have been unable to give them at waking-time when out of trance. Such is, in my opinion, the most important consequence of recent investigations with regard to lower psychisms, not only the disaggregated polygon is preserving a great psychical activity, but even, in certain cases with certain subjects (mediums), owing to the very fact of this disaggregation, it acquires a power of remarkable hyperactivity, and of far greater imaginative faculty.

As Flournoy¹ has rightly observed, "the unconscious Ego of mediums is absolutely capable of entirely inventing productions bearing an apparently absolute similarity to messages from beyond, and it is not sparing of it." The same author makes conspicuous this truth which is too much overlooked in certain circles, that with normal individuals absolutely sound in body and mind, by the simple fact of

¹Flournoy, "Genèse de quelques prétendus messages spirites," *Revue philosophique* and *Annales des Sciences Psychiques*, 1899, pp. 200 and 216.

taking interest in mediumistic experiments, their psychical equilibrium may be upset, unknown to them, thus leading to the production of an automatical activity whose manifestations are perfectly imitating messages from beyond the grave, although they are in fact only a consequence of the subliminal working of the subject's ordinary powers.

PART III

THE OCCULTISM OF TO-DAY

SUMMARY OF THE SECOND PART. OUTLINE AND PLAN OF THE THIRD PART

A. THEORIES

CHAPTER VII.—SPIRITUALISM.

CHAPTER VIII.—PSYCHICAL RADIATIONS: PERISPIRIT,
ASTRAL BODY AND RADIANT PSYCHICAL POWER.

CHAPTER IX.—THE INDEPENDENCE OF OCCULTISM WITH
REGARD TO RELIGIOUS OR PHILOSOPHICAL DOCTRINES.

B. CASES

CHAPTER X.—CASES WHOSE PROOF, SHOULD IT BE POS-
SIBLE, APPEARS AT BEST AS REMOTE.

I. TELEPATHY AND PREMONITIONS.

II. MATERIAL BROUGHT FROM LONG DISTANCES.

III. MATERIALIZATIONS.

CHAPTER XI.—CASES WHOSE PROOF SEEMS TO BE NEARER
AT HAND, AND SHOULD IN ANY CASE BE SOUGHT FIRST.

I. MENTAL SUGGESTION AND DIRECT COMMUNICA-
TION OF THOUGHT.

II. REMOVALS OF OBJECTS WITHIN REACH, WITHOUT
CONTACT; LEVITATION; RAPS.

III. CLAIRVOYANCE.

SUMMARY OF THE SECOND PART. OUTLINE AND PLAN OF THE THIRD PART.

57. I have contrived in the second part to establish that recent works on lower psychism have helped to "disoccult" and render scientific many phenomena that had been up to now considered as occult. The survey of the condition of suggestibility in certain polygons disaggregated in hypnosis, has removed from occultism the important chapter of Animal Magnetism. The survey of unconscious and involuntary movements of the polygon has caused automatical handwriting, table-turning, the divining rod, the exploring pendulum, and willing-game by contact, to enter the dominion of science. Since polygonal sensibility and memory have been analyzed, a heap of facts of erroneous divination have been "disocculted" as being merely hallucinations or reminiscences of a lower psychism. Finally, the survey of the polygonal association of ideas and polygonal imagination has indicated the intrinsic and natural origin of many mediumistic phenomena that were previously considered to be supernatural. In short, the investigation of lower psychism has plainly removed and extended the limits of Occultism. Still, it has not suppress Occultism.

The subject-matter of this third part is an examination and discussion of phenomena that are occult as yet, and at the same time a criticism of the Occultism of to-day. My opinion is that the best way to make such a critique is to view separately and successively theories and facts.¹ Theories

¹"One should always make a difference between facts and doctrine, and as such a difference has not been made, disorder is prevailing in the minds of many." Surbled, "Spirites et médiums," *Choses de l'autre monde*, 1901, p. 166.

are not in the least conjointly liable to facts; nor are facts conjointly liable to theories. One should not contest or support facts by means of arguments that are suitable to theories.

As Charles Richet observes: "The foolishness of an hypothesis is not sufficient reason why one should deny the facts on which it rests. There is nothing more untrue to logic—even to rudimental logic—than the negation of a phenomenon because hypotheses derived from this phenomenon are implying very little likelihood." And reversely, one must not infer that a fact is, or is not, real, because it is either in compliance or in contradiction with a given theory.

Therefore, I am going to look successively upon theories and facts, and previous to this, I declare again that the conclusions of the former part of my examination (as to theories) must in no wise forebode the conclusions of the latter part (concerning facts).

A. THEORIES

58. CLASSIFICATION OF THEORIES. PLAN OF THEIR SURVEY.

The most prominent theories that are usually current in publications referring to Occultism, may be included under two heads: Spiritism and "psychical radiations" (perispirit, astral body and radiant psychical power). In a separate chapter (Chapter IX), I shall discuss a matter connected with the survey of theories, i. e., the relations of Occultism to various philosophical or religious doctrines.

CHAPTER VII

SPIRITUALISM

I. DEFINITION AND ACCOUNT OF THE SPIRITUALISTIC DOCTRINE.

59. *Meaning of the word "Spiritualism."*

60. *Account of the Theory.*

II. DISCUSSION OF THE THEORY OF SPIRITUALISM.

61. *This theory unlikely.*

62. *Spiritualism must bring forth its proofs.*

63. *The ideas expressed during trances are those of the mediums and not of the spirits evoked.*

64. *Errors of the mediums. The deceitful spirits.*

65. *The spiritualists do not agree together.*

III. 66. CONCLUSIONS.

I. DEFINITION AND OUTLINE OF THE DOCTRINE OF SPIRITUALISM

I take here the word "spiritualism" in its etymological sense, i. e. in its narrow and true sense. I had used this word in the first edition of this book ("Le Spiritisme devant la Science") in its widest meaning, including under that term the whole of Occultism, that is all the occult phenomena. I have already said that I have been rightly reproached with it. Maxwell¹ has reproached both Pierre Janet and myself with the meaning ascribed to the word spiritualism.

"Spiritualism is a religion;² it is not a science." It is a systematic explanation of a whole series of facts, imperfectly

¹Maxwell, *loc. cit.*, p. 229.

²"Spiritualism is really a religion, the religion of spirits" (Surbled, "Spirites et médiums," *Choses de l'autre monde*, p. 165). "Spiritism is only one of numerous religions that have come forward in due time to answer to a need of mankind. Spiritism is only a systematic explana-

known as yet, but it is not a mere assertion of those facts. Spiritism, i. e. the summary of metaphysical doctrines, resting upon revelations by spirits, should not for the present at least be considered as belonging to biology." I adopt this definition and now ascribe to spiritualism its real meaning as a theory.

I term spiritualism the theory that ascribes to spirits the various phenomena of Occultism as well as mediumistic phenomena. I am referring to disembodied spirits of deceased persons who, upon the call of the medium, are momentarily reincarnated in his body, and who give him messages and information. I insist upon the precise meaning of the word "spirits," since it is more obscure in the singular, or rather implies another meaning. If I say there is "spirit," i. e. psychism, in mediumistic phenomena, this is a commonplace that nobody denies. In order to admit that experiments made with mediums are of a psychical order, it is quite unnecessary to be a believer in the doctrine of Spiritualism. This question is well asserted by Flournoy¹ when he writes concerning Madame Z., a medium.

"The message of M. R., who, in a short composition that does not lack a certain quality, is relating the last moments of his earthly life, his passage to the next world and his first impressions with regard to his new existence, indubitably implies a spirit as its author. Still with greater force, it is the same with the series of messages of the same alleged origin, that have followed one another during several days under the pencil of Mme. Z.; all bear the stamp of the same personality.

tion of phenomena." (Mme. Laura Finch, "Spiritisme et théosophie. Du droit d'évoquer les morts," *Annales des Sciences Psychiques*, 1905, p. 279.)

¹Flournoy, Travail cité des *Annales des Sciences Psychiques*, 1899, p. 208.

“The question is only to know whether the principle of this continuous and increasing systematization must be sought for in an independent spirit, different from the spirit of Mme. Z. herself, according to the spiritistic doctrine, and as she is inclined to believe it; or whether on the contrary this spirit is one with her, so that the personality made manifest through those messages would be only a temporary function, an act, a momentary projection, or creation, of her individuality, in the same manner as people whom we see and who are talking to us during sleep are created by ourselves.”

So the meaning is made precise; what we are about to investigate under the name of spiritualism is a theory that ascribes occult phenomena to the calling of spirits.

60. ACCOUNT OF THE THEORY.

The meaning of the word is made more precise in an outline of the doctrine as made by spiritualists themselves. In his book, whose title is a program in itself, Léon Denis¹ says: “A thorough and frequent intercourse has been established since fifty years or so between mankind and the spirit world. The veil of death has been half opened. Souls have spoken (in experimentation). There is no possible success, no secure result without assistance and help from above. By narrowing spiritualism, by giving it an exclusively experimental character, one chiefly succeeds in coming in contact with the lower elements of the beyond, with the multi-

¹Léon Denis, “Dans l’invisible.” “Spiritisme et médiumnité.” “Traité de spiritualisme expérimental.” “Les faits et les lois.” “Phénomènes spontanés.” “Typtologie et psychographie.” “Les fantômes des vivants et les esprits des morts.” “Incorporation et matérialisations des défunts.” “Méthode d’expérimentation.” “Formation et direction des groupes.” “Identité des esprits.” “La médiumnité à travers les âges.” Paris, 1904.—See also Edmond Dupouy, “Sciences occultes et physiologie psychique,” 1898 (the whole chapter: “Phénomènes spiritiques,” p. 151).

tude of rudimental spirits whose fatal influence is surrounding and overwhelming mediums; they lead them into fraud; they spread mischievous effluvia over experimentalists, and, at the same time, are the frequent cause of errors or mystification. The frivolous spirits that pullulate our surroundings, are attracted because of the humor with which experiments are sometimes made. Modes of correspondence connecting men on earth are gradually extended to inhabitants of the invisible world until, owing to new methods, they reach the human race on spheres in space. Spiritualism is not only a proof of survival; it also becomes a channel through which inspirations from the upper world come down to mankind. For this reason it becomes more than a science; it is the teaching of Heaven to earth. In fact, there are two spiritisms. The former brings us into contact with higher intelligences, and also with the beloved spirits whom we have known on earth and who were the joy of our life. There is also another, a frivolous and worldly mode of experimentation, through which we have intercourse with the lower elements of the invisible world; it leads to lessening the reverence due to the world beyond. The vast realm of souls is crowded with benevolent or malignant entities; they are found at any grade of the infinite ladder, from the meanest and rudest souls bordering upon animal life to the noblest and purest spirits, heralds of light, who belong to any regions of time and share the radiations of divine thought."

By this it may be seen that there is a whole theory, a real doctrine, that tries to explain everything by mediumship, even as to its errors and frauds. Such is the doctrine originated in America (see above), whose gospel has been delineated by Allan Kardec, "according to the teaching given by upper spirits through different mediums."

In a book whose title is a promise of "irrefutable proofs regarding our intercourse with the spirit world," Gabriel

Delanne¹ says, "The whole of experimental and philosophical spiritualism has its basis in the possibility of our having intercourse with spirits, i. e. with souls of persons who have lived on earth." The author hopes to demonstrate in his book "that real mediumship is truly caused by the action of disembodied intelligence."

Finally, Dr. Lapponi² "Archiatro della Santita di Leone XIII^e di Pio X," says: "I am bound to look upon spiritualistic phenomena as upon phenomena of a supernatural order. It seems necessary to admit, as causing the analyzed facts, incorporeal beings who certify and prove their existence by means of those phenomena. From a philosophical point of view, it is credible, and even almost logically obvious, that above man among a series of created beings are other beings more perfect than he, more intelligent, and endowed also with greater physical power. To such beings, according to our miserable language, we give only the name of 'spirits.' There are, among those beings, some spirits who, having passed through their existence on earth, leave their body in the visible world and go with what is the spark, the operating principle, the *spirit* of their life, towards happier regions. Between the magic and necromancy of the past and the spiritualism of the present, I find no essential difference. On the contrary, I perceive in it resemblances that make me infer that there is a complete identity. Spiritualism is the expression of an activity of a preternatural order."

¹Gabriel Delanne, "Recherches sur la médiumnité." "Etudes des travaux des savants." "L'écriture automatique des hystériques." "L'écriture mécanique des médiums." "Preuves absolues de nos communications avec le monde des esprits." Paris, 1902.

²Dott—Giuseppe Lapponi, "Ipnotismo e spiritismo. Studio medico-critico," Roma, 1906.—All passages from this book, quoted here, were kindly translated into French by Miss Rix. (A French translation was issued by Perrin, a little previous to Lapponi's death.)

II. DISCUSSION OF THE THEORY OF SPIRITUALISM

There is in my opinion nothing so imperfectly established as the spiritistic doctrine, the "systematical" explanation of occult facts by spirits.

61. THIS THEORY UNLIKELY.

First of all the actual evocation of spirits is absolutely unlikely. "I do not believe," says Morin, "that, after having been extricated from the hindrances of the human body, a soul may be so stupid as to creep into a piece of wood in order to express its presence there by means of the practise of so absurd a manifestation!"

Babinet, who quotes the above passage, declares that at the moment when he was writing, there were in America 60,000 mediums, and that all the dead, more or less famous, must constantly be at their disposal. One must add that, after such periods of posthumous activity, there are in compensation long stages of enforced idleness.

Lapponi observes that since experiments were instituted in this matter the education of spirits has improved, and that they are now admirably capable of fitting the medium (*milieu*). He says: "There is a queer particular in all this. One would readily believe that the spirits have had to look to themselves for ways of expressing themselves and improving their knowledge of the habits of their fellow-creatures, through lessons taken at home in the next world. Another astonishing fact is the possibility for spirits to adapt their tastes to those of the experimentalists who cultivate their acquaintance (*dei loro devoti cultari*). One would think that, like the pythoness who took the part of King Philip when issuing her oracles, the spirits of to-day share the opinions of those who take advice of them; they are pious when

dealing with pious persons, affectionate towards people that are fond of their relatives; they take interest in politics with politicians; they are business men with merchants, learned with men of science, vulgar and common with the lower class of individuals. This is the reason why spirits are, in England, skeptical, talkers, *avveduti*. In Germany they are mystical, theorists, and transcendental. In France, they appear as idle, liberal, careless and frivolous. In the United States of America they are matter-of-fact, dogmatic, and daring; they proclaim their belief in metempsychosis, whilst elsewhere, and especially among us in Italy, they declare themselves to be pantheists, atheists, or materialists."

By diminishing the strength of his objections, Lapponi himself attempts to establish that these give no absolute disproof of Spiritualism. Quite so, but one may say that they indicate its unlikelihood.

62. SPIRITUALISM MUST BRING FORTH ITS PROOFS.

Still, an unlikely doctrine may be true. But, previous to being accepted it should afford its own proofs. Spirits should supply us with numerous and irrefutable proofs as to their presence and identity if they want us, in spite of their improbability, to believe in them.

Flournoy says that "it is necessary, in the complete critique of a mediumistic experience, to establish first that the contents of the message may have been issued by the medium, and lastly, that it is impossible they should have come from somewhere else." I transpose the proposition and say that in order to make us believe in the reality of spiritism spiritualists should first prove that it is impossible for the medium to be the author of the contents of the message, and then, that they have certainly originated elsewhere.¹

¹Flournoy, work cited in the *Annales des Sciences Psychiques*, 1899, p. 201.

As Flournoy observes rightly: "In case sufficient reason for a message is found in the medium, we have no right to infer into the bargain, even in virtue of hypothesis, the existence of another agent, different from the medium and involving a useless repetition of him." Therefore, Spiritualism should afford its own proofs, and it scarcely ever, or seldom does this.

Charles Richet¹ writes: "To speak the truth—for one should be righteous even towards those who are not so with us—spiritualists make a hard trial of the patience of scientists. Their assertions are lacking in proofs; their researches are as little methodical as possible; they mix together doctrine and experiments, poetical prayers and minute precaution, advice in morals and conditions of observation; they believe in the good faith of any one, and suppose every one to be equally qualified to make a good observation; they most frequently look like people whose conviction is settled in advance, whilst conviction ought to come as the conclusion of their experiments."

63. THE IDEAS EXPREST DURING TRANCE ARE THOSE OF MEDIUMS, AND NOT THOSE OF EVOKED SPIRITS.

Here is the really leading argument against Spiritualism. In order to prove their existence and identify in mediumistic séances, spirits ought to think and speak like the individuals whom they represent, but as a matter of fact, they merely think and speak like the mediums themselves, who in those cases seem to be the sole authors of the messages exprest. The matter is perfectly settled in Lapponi's passage cited above. If evocations are made easier and more perfect, and if spirits themselves apply to the evoking milieu, it is because the whole experience depends solely on the

¹ Charles Richet, article cited in the *Annales des Sciences Psychiques*, 1905, p. 12.

medium and not on the evoked person. Every one has been wondering at this. Pierre Janet has admirably illustrated it when, speaking about messages sent to earth by more or less famous spirits, through mediums, he has said: "How is it possible that readers of such messages should not have seen that those lucubrations, although they offer some intelligent combinations, are in the main utterly absurd, and that it is unnecessary to scrutinize mysteries beyond the grave in order to write such nonsense?"

When speaking through a medium, Corneille only writes childish poetry, and Bossuet delivers such puerile sermons that a country clergyman would be ashamed to speak of them. After a spiritualistic séance Wundt bitterly complains of the degeneracy undergone by the spirits of the most renowned personages; they talk exactly as the insane and idiots do. Allan Kardec, who is over-confident, evokes successively the souls of people dwelling on various spheres, and asks them questions concerning Heaven, Hell and Purgatory. He is right, after all, since it is the only way of getting information on these interesting questions. But in case you read either the information of M. Samson or M. Jobard, or that of poor Auguste Michel, or of Prince Ouran, you will find that those good spirits are not better informed than we are, and that they would greatly need to read the descriptions of Hell and Paradise as given by the poets in order to know a little about the matter. We had better give up wishing for a future life if we have to spend it with such individuals.

Surbled,¹ speaking likewise with regard to messages gotten through tables on the part of spirits, says: "Most frequently they are only notions, commonplaces that reach us from beyond the grave. An evocation of this kind would

¹Surbled, "Spirites et Médiums," *Choses de l'autre monde*, 1901, p. 31.

be striking if it were real—if we could see such men as Galileo or Copernicus rising from the next world in order to teach us. But the fact of the medium summoning in our presence a scientist of the past and acting as his spokesman, involves nothing extraordinary; it even becomes suspicious in case we notice a strange likeness between this medium's ideas and those exprest by the spirits evoked. One might believe that the medium is not interpreting thoughts, but rather ascribing thoughts to the disembodied persons, by using at the same time imagination and a good memory. "Man is betrayed by his speech." The author quotes this sentence of Santini: "For instance, during the course of the same séance, the spirit of Voltaire would speak like a carman in case the medium (or more simply the operator) belongs to that class of society, or to any other similar station in life, or perhaps it would express itself ten minutes later as would a gentleman provided the medium is a well-bred or learned individual."

Camille Flammarion relates in *La Revue* (1906, p. 189) his former experiments with Allan Kardec which established that the message signed "Bernard Palissy, on Jupiter," was not sent by a spirit dwelling on that sphere; neither was Galileo any way related to the messages ascribed to him, they were unconsciously written by Flammarion.

In most of the experiments one might find this unlikelihood and strangeness, or puerility of mediumistic messages—even in those recently obtained. Abelard, the unhappy and famous husband of Héloïse, has issued a book of conversations from beyond the grave,¹ through the channels of two kind women and a devoted disciple.

At first Annette the house-maid and Mme. de V. were

¹"Entretiens posthumes du philosophe Pierre de Bérenger (dit Abailard)," 8vo. (Georges Malet, "Entretiens posthumes d'Abailard avec deux Parisiennes," *Echo du Merveilleux*, 1906, p. 246.) Cf. a lecture by

evoking a spirit who pretended that his only name was Pierre Laberon, but he disclosed that Pierre was Abelard. He usually came forth when Mme. de V. had joined with Mme. Blanche C.—“an author well known under a nom-de-plume by readers that are fond of feuilletons.” “I find in you, dear Blanche, what in Annette was absolutely lacking, i. e. notions of spelling and French.” So writes Abelard, and he asserts that the work he is going to dictate “will be an irrefutable proof of an interference on the part of the invisible world, “for,” he adds, “although you are very acute, there will be in the course of this volume matters so utterly transcendental that it will be impossible to ascribe them to a woman’s mind, no matter how sharp it may be.” And in spite of all, “apart from a neat hand which is most likely due to the medium’s literary personality, nothing is found therein that may differ from the usual spiritualistic reasonings.”

A circle of English spiritualists address to the *Temps*¹ a posthumous interview with the Imperial Prince. One might infer from it that “Napoleon III had retained in the next world a household perfectly organized. He has servants and a Court, at the same time civil and military. Thus the next world would be merely a mirror of our sub-lunar sphere. I wish I did not have to die, since it is useless to change.” The Prince is questioned as to the number of the regiment in which he served when killed. He answers, “I do not remember; I believe it was an Irish regiment.” Pierre Mille remarks: “If Napoleon I has not put his grand-nephew under arrest, since he has forgotten the number of his regiment, there is no discipline in the armies of the beyond.”

Gabriel Delanne on “The teachings of the beyond,” made at the French Society for Psychical Researches (*Echo du Merveilleux*, 1907, p. 437).

¹Pierre Mille, “Un message de l’au-delà,” *Le Temps (Annales des Sciences Psychiques*, 1906, p. 308).

Signor di Santa Prassede¹ describes "six psychical séances that took place last summer at the Villa Albaro."

"The various spirits evoked, emitted a scent of their own: the shipwrecked little girl smelt like violets; Captain Jones was exhaling an odor of tobacco; Abdul Aziz gave a perfume of ottar; the invisible soul of a young lady ran over the piano with fingers resembling the wings of a butterfly; one soul was distilling a sweet and delicious fragrance, unknown till then, which Signor di Santa Prassede unhesitatingly asserted to be the perfume of innocence; Tobias emitted no odor whatever, and this is a quality scarcely to be found in a dog, but as is the habit of its congeners, it scented other souls quite easily. Abdul Aziz, who smelled of ottar, was a good-tempered fellow and described Mohammed's paradise. Napoleon came forth and played a rather poor pasquinade by evoking the battle of Wagram and imitating the noise of bullets that flattened against his snuff-box."

Perhaps this pamphlet is an ironical *pasticcio*, issued only to hoax ingenuous folk.²

What I have said concerning mediums who are earnest, may be set in opposition to those grotesque séances. Among them the séance of Mme. Hugo d'Alésy, taken from Pierre Janet (who had borrowed it from the *Revue Spirite*), is not less ridiculous and does not bear any more than others the stamp of the beyond.

The medium whose experiments I have recalled, according to Surbled, is not more intelligent when he declares that the

¹Martino di Santa Prassede, Après la Villa Carmen, *Journal des Débats* Aug. 2, 1906.

²People were wondering at the nature of this pamphlet. In fact, they were troubled to perceive whether the author intended to make a satire, without success, or if he was so stupid as to imagine that persons dealing with psychical research would believe in the reality of his stories. Letters dated from Genoa allow us to think that this hypothesis is the true one (*Annales des Sciences Psychiques*, 1906, p. 592).

inhabitants of the moon are like us except that they cannot live with air, while we are unable to dispense with it. Helen Smith and Mme. Smead, who are earnest mediums, have not afforded us as regards Mars more sensational and likely revelations. Behind the manifestations of Marie Antoinette or Cagliostro, or behind those of the inhabitants of Mars we always meet with the medium's peculiar mental condition.

The most intelligent and complex romances of mediums—should they be surveyed by men like Flournoy or Hyslop—contain nothing except matters previously stored within the disaggregated polygon of the medium entranced, or were exclusively derived from that inner place of origin. There is nothing that might seem to come only from the beyond.¹

Flournoy demonstrates in his work already quoted from the *Revue Philosophique* that “the would-be spiritualistic messages are merely caused by the medium's subconscious imagination working on latent remembrances or preoccupations,” and in order to ratify this opinion he cites cases that are absolutely noteworthy. I am going to sum up the first one.

Mme. Z.'s father and one of her brothers have had prophetic dreams, and her son has practised automatical handwriting. She is herself fond of reading Allan Kardec, Gibier, etc. During one month she tries experiments with a table; next she produces automatic handwriting, and after eight days (April 21) she gets the names of departed relatives and friends, together with philosophical and religious messages that are continued on the following days. On April 24, as she had already written various messages, her pencil is suddenly tracing the name of a Mr. R., a young Frenchman whom she knew, and who recently entered into

¹Cf. the whole interesting chapter on “Les Tables de Jersey,” by Jules Bois, *loc. cit.*, p. 101.

holy orders. This spirit informs her that it has been disembodied on the previous day; it gives a description of his last illness, relates that death has come without any suffering whatever; that he has recommendations by letters, and has finally awakened near God amongst relatives and friends. "Your father has led me into your presence; I did not know that such an intercourse was possible. I have at once thought of my beloved. My wish would have been to speak with them, but I can communicate with you only. I remain with you and see you, but still I look only at your spirit." Nothing is more precise than this evocation, which happened every day for a week. Every one would have been bound to see in this an irrefutable proof of the reality of spiritualism had not a letter arrived on April 30 from Mr. R., who, far from being dead, still enjoyed perfect health.¹

Although Charles Richet does not deem it "very mighty," he mentions and debates an objection to spiritualism "inferred from the strange characters of personalities."² For instance, "It has been asserted that it was stupid on the part of Aristotle's personality to come back and speak French or English, and give warnings as transcendental in spirit as the following: 'Be persevering; owing to patience, you will succeed,' or 'You will get better results to-morrow.' Should any personality manifest its existence through automatic handwriting, it uses the medium's writing and makes the same mistakes in spelling as the medium himself would make. When persons less famous than Aristotle are concerned, they have forgotten certain characteristics. For instance, they fail to remember their surname, or the place where they used to live. Phinuit, Mrs. Piper's familiar spirit, pretended to have been a French physician at

¹When discussing telepathy, I shall further deal with this fact.

²Charles Richet, works cited in the *Annales des Sciences Psychiques*, 1905, p. 32.

Metz; he talked English as he had forgotten the French language because he attended so many English people dwelling up there. It would be easy to detect numerous similar instances of this absurdity." Charles Richet says: "Many unlikely assertions are met with in Spiritualism—spirits of Englishmen that talk French, ghosts that, when materialized, materialize their hat, their stick or their eyeglass at the same time."

Of course, Charles Richet is quoting these objections only that he may show he does not believe them to be of value. But he disregards them merely because he wants to deal exclusively with facts. He does not affirm the doctrine of personal survival; neither does he assert the theory of spiritualism which I am discussing in this paragraph.

"The matter is not," as he observes, "to decide in this moment if it is Aristotle who is really coming back and speaking French unto us, only to tell us: 'be persevering and patient.' One should know whether an intelligence is made manifest according to modalities unknown as yet, in objects that seem to be inert, and by the interference of a new power not previously thought of. Whether the first be true or false, such is all the question and it is not sufficient in denying the fact of an intelligent power, to say that this power is falsely asserted to be Aristotle—provided that faith not be deniable in itself. One may question Aristotle's presence, but it is undeniable that there is an intelligence."

We absolutely agree. When setting the question of facts apart from theories, Charles Richet is quite right. He asserts that the above-mentioned objection is of no value as regards facts. But, in case one should survey, as I am doing, not facts, but the spiritualistic hypothesis, this objection is still very mighty, and it is interesting to have it exprest by Charles Richet. In order for a spirit to afford, in

a séance, real proof of his presence and identity, he should give information quite new and which the medium has never heard of. I do not think this has ever been done.

It has been recently asserted that Dr. Hodgson fulfilled a little while after his death the promise he made to the Society for Psychical Research, and has come back and given his impressions of the other world.¹ "The world had no right to ask for more striking proof."² However, Prof. Hyslop unhappily is said to have refuted this pretended promise.³ Dr. Funk, however, has declared that this statement is "utterly false." In any case, the proof so much longed for has eluded us.

Myers offered to members of the S. F. P. R. an oppor-

¹When about to die, Canius Junius said to his friends: "If you ask me if the soul is immortal, I am going to know it, and in case it is possible, I shall come back and let you know" (Citat. Maxwell, *loc. cit.*, p. 232).

²"L'esprit du docteur Hodgson se serait manifesté." *Annales des Sciences Psychiques*, 1906, p. 124.

³"Une prétendue promesse du Dr. Hodgson," *Annales des Sciences Psychiques*, 1906, p. 392. Hyslop remarks that "the constant intercourse Dr. Hodgson had with Mrs. Piper for about twenty years" should hinder us from taking "as irrefutable proof spiritualistic messages originating there and exprest through this channel." It should be added here that the medium quoted by Dr. Funk was Mrs. May Pepper, "whom one should not confuse with the well-known Mrs. Piper described by Mr. Hodgson himself and whose mediumistic powers are the same."

EDITOR'S NOTE.—The statements here made with regard to Dr. Hodgson have been shown to Prof. Hyslop, who writes as follows regarding them: "I would say that Dr. Funk is quite right about my position. I have never refuted the 'pretended promise' to return. On the contrary, I regard it as having been fulfilled, and so well fulfilled that only ignorance or prejudice would fail to appreciate the evidence. In my articles on Hodgson's communications I merely said that he might have said various things about his life, which would appear in the trance. I did not say that this applied to all the communications, but merely remarked that the eighteen years of his work were exposed to suspicion. Tho I did not express myself exactly in the language used by Grasset, the general idea was implied in what I did say. I mean by it that conclusive evidence would not come, for the hardened skeptic, through the Piper case alone, but that with other cases it would be satisfactory."

tunity to write under a sealed envelope, statements known only to them. The envelope was to be opened only after a medium pretending to have intercourse with a disembodied spirit should have claimed to know the contents of the letter. The experiment has not yet been made. Mariel Mangin has perfectly set forth all the precautions that should be taken when making it, so as to prevent it from becoming illusive.

Camille Flammarion relates that "Mme. Werner, to whom he had been related for more than thirty years by a close friendship, and who had been dead one year, had many times promised him with the most express intention to come after her death and complete his psychical researches by a manifestation, should this be possible." Flammarion accordingly attempted to secure this embodiment with Eusapia at the house of Dr. Ostwalt, Mme. Werner's son-in-law. "In spite of all our efforts," he says, "we have failed to obtain even one proof of identity." It would have been very easy—so it seems—for Mme. Werner to give one, as she had so formally promised to do. In spite of the announcement (by raps) of an apparition that would enable us to identify her, we only perceived a whitish shape lacking definite outlines, even after we had made the darkness almost complete." He infers: "Most certainly those phenomena are caused by a power emanating from the medium, for they all occur immediately near the medium. This power is intelligent, but it is possible that the intelligence complying with our questions is not distinct from the medium's intelligence. Nothing shows that the spirit evoked has any influence whatever in the matter. Therefore, I conclude that spirits have brought forth no proof as to their real presence and identity.¹ Mediumistic messages, in trances, merely ex-

¹Commenting on a report address to the Société d'Etude des Phénomènes Psychiques of Nancy, on October 21, 1906, by M. X., in the

press the medium's polygonal thought and involve the evolution of no spirit whatever.¹

Quite recently a book was issued on "La Genèse de l'Ame." It is only a "course of mediumistic messages." Its author is a "Parisian lady" whose nom-de-plume is Ch. d'Orino. Previous to this book one would vainly—even in Allan Kardec's works—have tried to find a complete theory of the soul, of its origin and fate, gotten through revelation. "La Genèse de l'Ame" supplements this. It is a complete rationale of the doctrine as wholly written out by a number of spirits such as "Renan, Harlowe, Father Henri, Zola, Monsignor Dupanloup, Father Didon, Mauissant, and the curé d'Ars."²

Gaston Méry asserts that "the intelligences which borrowed those famous names and called the personalities forth certainly have nothing in common with the deceased." The

matter of the identity of psychical personalities, Gaston Méry concludes: "I have attentively read the text in question. I have analyzed it; I have for a long while thought it over, and I feel obliged to confess to my correspondent that he has not altered my ideas on the matter. I admit that the facts quoted are strange, or even—according to my correspondent's expression—moving. However, I believe I am in a position to assert that they are not real proofs. In my opinion they are not even semblances of proofs. I shall readily go so far as to say that, far from establishing the possibility of the identification of spirits, they prove the impossibility" (*Echo du Merveilleux*, 1907, pp. 81, 101, 166).

¹De Rochas at first had seen in his experiments on "the retrogression of memory" "a proof of reincarnation." His recent studies have enabled him to put the matter in its proper place. He declares that his experiments "throw a new light upon the subconscious"; they show how cautiously one should accept the subjects' revelations, even in case their good faith is unquestioned, and when such revelations are accompanied by somatical particulars that seem to prove their reality, in a complete manner (*Echo du Merveilleux*, 1907, p. 131).

²Gaston Méry, "La Genèse de l'Ame," *Echo du Merveilleux*, 1907, pp. 221-241; "Une lettre de Ch. d'Orino," *Ibidem*, p. 261; "Une lettre du R. P. Gaffre," *Ibidem*, p. 284, Jules Bois says (p. 264): "Absolute proof of the identity of a spirit has never been afforded."

doctrine suggested by them "is not only contrary to traditional ideas, but it depends upon no positive data, and, though having some semblance of truth, is merely a deceptive delusion." Those theories, as attributed to the teaching of spirits, are obviously contrary to verified facts, or rest upon erroneous reasoning. This illustrates "once more, and at the same time, the whole sum of vain imagination and idle fancy that is to be detected in spiritualism."

The same author¹ discusses, with much good sense in a lecture delivered at the Nancy Society for Psychical Researches,² the identity of spirits. He compares, with much irreverence, those experiments³ with a joke made by Alphonse Allais, who for a long time hoaxed a countryman. Having seen, in a café, this man's hat, he mentioned to him the place where he lived and the name of his hatter, and then, after having looked into a directory, the names of a druggist, butcher and baker there.

64. ERRORS OF MEDIUMS. DECEITFUL SPIRITS.

A new confirmation of the theory exprest is afforded by the errors frequently made by mediums when delivering messages. In Maxwell's⁴ book will be found the distressing relation of a mediumistic error that almost became a tragedy. M. V. is making with various mediums—and especially with Mme. V.—very queer experiments relating to raps, material brought in, removals of objects, and telepathical or divinatory messages. One day, the spirit gives orders by wire to sell in Paris 6,000 fr. of three per cent.

¹Gaston Méry, *Echo du Merveilleux*, 1907, pp. 81-101. Gabriel Jeanne, *Revue du Monde Invisible (Echo du Merveilleux*, 1907, p. 218).

²*Echo du Merveilleux*, Nov. 1 and 15, 1907; "Réponse à Gaston Méry," May, 1907, p. 421.

³"Les 'Alphonse Allais' de l'au-delà," *Echo du Merveilleux*, 1907, p. 421.

⁴Maxwell, *loc. cit.*, p. 232.

stock, and to invest 10,000 fr. in Italian funds. Although Mmc. V., who was a stock-broker's wife, had never dealt with business matters, the very words used in dictating the arbitrage, showed that the transaction had been imagined by a mind well acquainted with this kind of business. The spirit was speculating on a rising in the Italian funds and on a fall in the French stock; all this proved successful. Then, the spirit undertakes to manage M. V.'s business. "You must no longer be concerned with business," says he, "It is mine. I shall see to it. You have only to obey me and let me have my own way and you will be rewarded." In fact, the arbitrage moved along perfectly, as he was able to foresee the future. The anonymous financier sold the Italian funds at the highest price, whilst he waited during a few days in order to repurchase his three per cent. stock on better conditions. Such a gift of forecast was exceedingly striking. With such a power at his service the chance for luck appeared boundless. The profit involved in both transactions was about 3,000 fr., use of which was directed in a judicious manner by the spirit himself. He induced M. V. to adopt the dangerous system of non-realization. Instead of taking his profits at every liquidation, he was denied any conversion into money. On January 1, 1870, the market price indicated a profit of 30,000 fr. In spite of repeated entreaties, the stock-broker failed to secure from the spirit permission to convert the account into money. M. V.'s quietude remained untouched up to the moment when complications with Germany first appeared. From the first day, when in line with his former experience, the stock-broker wished to convert his profits into money, the spirit resisted. "Now you are again feeling the same terrors as when difficulties happened regarding Luxembourg. I assure you there will be no war. Believe in me, I am your master and have never deceived you these three years."

Despite those assertions, two days later the war was about to begin. "By taking hold of the telegraphic lines the light-hearted Secretary of State achieved my downfall. I was put in a place where it was impossible to wire to Paris so as to circumscribe my ruin." The spirit became absolutely dumb and answered questions no longer. "And still the hour was of importance, for twenty years of work were sinking into the abyss."

The spirit had obviously been failing ever since the dis-aggregated polygon of the stock-broker's wife had been overwhelmed in its activities and deceived in its reasonings by events that surpassed its psychical ken. Errors of this kind are numerous and frequent. But many people feel more inclined to trumpet forth success than failure in mediumistic divinations.

I have related above the error of the spirit who reported to Mme. Z. (the medium of Flournoy)¹ all particulars respecting the death of M. R. (whom he embodied) although M. R. was perfectly alive. Another strange story of a fallacious spirit who deceived Mme. Smead, a plaindealing medium, is termed by Hyslop² "the joke of Harrison Clarke." He discusses his death in such a battle, such a regiment, and gives all the particulars, which are subsequently discovered to be false. When one of his errors was indicated to him he tried to cover it up. Most usually sincere believers in spirits are not shaken by gross and obvious errors made by their mediums.

The stock-broker quoted by Maxwell was convinced that the mistake had been desired by the spirit, and that his mind had been intended and prepared by him during two

¹Flournoy, Travail cité des *Annales des Sciences Psychiques*, 1899, p. 199.

²Prof. Hyslop, Travail cité des *Annales des Sciences Psychiques*, 1906, p. 479.

years and a half. Finally, when all was accomplished, he said sternly unto him: "You meant to come to this point." The abashed spirit stammered an answer, of which M. V. could understand only the word "trials." When Flournoy's second medium went to his son's master and got positive and official evidence of the error made by the spirit, he did not give up his belief. While the director was speaking, his hand was writing on the desk, always with slowness due to crumpled paper. He heard the words: "I have deceived you, Michel; forgive me." That spirit he had thought to be so utterly benevolent, and whom he had candidly chosen as his guide, as his second conscience, had scandalously deceived him! It was a shame. So he said, instead of detecting in those facts evidence of falsehood in the spiritualistic hypothesis. Sincere believers are preserving such faith and now admit the existence of fallacious spirits. Allan Kardec had already acknowledged that "some spirits are frivolous, deceitful and malignant."¹ Quite recently the *Annales* were saying of Craddock:² "Still we should refuse to accept as proofs—or even as hints—unfavorable to mediums the false information given with regard to their identity by spirits that are made manifest. Such inaccuracies, more or less radical, have been verified by all experimentalists in mediumistic messages, and it is impossible to infer from them that the medium's phenomena are objectively fraudulent. In order to admit as unfavorable evidences those inaccuracies, it would first be necessary to approve of this strange theory: that mediumistic messages are always issued by spirits; and next, that spirits are in all cases the very entities they pretend to be."

In spite of all these efforts, I think the objections to the theory of spiritualism based on the errors of mediums are

¹*Cf. Echo du Merveilleux*, 1906, Nos. 215 and 217.

²*Annales des Sciences Psychiques*, 1906, p. 323.

still very strong. In order to prove its reality, spiritualism ought not only to speak the truth always, but also to put forth verities that are beyond the usual ken of earthly psychisms. But instead spirits are found to be mistaken, or, if they deceive, where is the evidence that they really exist? Are we to believe that spirits are deceiving us as to their identity, or playing comedies or farces in order to wrong us, or to make fun of us? If some of the spirits evoked are deceitful and malignant, how are we to trust the experiments of spiritualism at large?¹

As Flournoy rightly observes: "If you ascribe to a deceitful spirit—as spirit-believers would readily do—erroneous messages for which there is sufficient explanation in the psychical mood of the subject, you transgress a principle according to which causes should not unnecessarily be multiplied." The hypothesis of fallacious spirits is only a "clever shift enabling spiritualism to make the most—even for its own benefit—of messages formally contradicted by facts. In this special case Mme. Z. has believed for a long time (and is yet inclined to believe a little, as I think) that a fairy player from the spirit world indulged in a vulgar pleasantry when sitting in her presence as if he were really M. R. It would be quite necessary for this independent spirit to be perfectly acquainted with the most secret thought, either conscious or subliminal, entertained by Mme. Z., at this moment, with regard to remembrances, preoccupations, feelings or inclinations concerning M. R.

"In order to compose his apocryphal messages this spirit has chosen what most exactly fitted in with the ideas of

¹"The conclusion is that all spiritualistic experiments are deceptive at least, since, should they afford us the possibility of evoking deceitful spirits, they only give us a presumption as to the possibility of raising up truthful spirits."—Gaston Méry, "Une protestation des spirites," *Echo du Merveilleux*, 1906, p. 24.

Mme. Z. respecting her young friend, or with the impressions she preserved about him, also with the contents of letters written by both. In other words, this skilful forger would have taken from Mme. Z. the complex and systematical notion she had at that time of M. R. He would have interpolated nothing except what she had herself added, owing to the natural and spontaneous working of her powers of imagination and reasoning. He would have merely reproduced, as in an exact mirror, the features of M. R., such as they were, imprest upon her mind, and interpreted, as an obedient secretary, what was whispered by her fanciful dreams, the wishes or fears of her heart, or the scruples of her conscience.

“But now, how would this kind spirit be different from Mme. Z. herself? What would be the meaning of such an independent individuality, that is solely an echo, a reflection, a particle of another person, and what is the use of such a duplicate of reality? Is it not stupid and childish to imagine, in order to explain a synthesis and a psychological co-ordination, another true principle of synthesis and co-ordination, another individual or spirit different from the very individual or mind which already contains all the elements gathered, and whose nature is exerting an influence over the grouping in order to carry this out?”

65. SPIRITUALISTS DO NOT AGREE TOGETHER.

A final argument may be inferred against spiritualism from the fact that various circles of believers do not agree as to reincarnation. Maxwell¹ sets forth in the following manner an objection to the teaching of spirits which he deems irrefutable. In all countries of the Continent they are declaring their belief in reincarnation. They frequently announce the moment when they are going to be embodied

¹Maxwell, *loc. cit.*, p. 7.

again in a new human wrapper. They even more readily relate adventures on the part of their followers. On the contrary, in England, spirits affirm that there is no reincarnation.¹

This is a formal, absolute and irreconcilable contradiction. How are we to have a judicious opinion? Who is speaking the truth? Who is right, the Anglo-Saxon spirits or the continental entities? It is likely that messages are not emitted by well-informed witnesses. Aksakoff, one of the most learned believers, is indirectly coming to this conclusion. He acknowledges that one is never sure of the identity of the being made manifest during a séance.²

III. CONCLUSIONS

66. I think a conclusion is easily drawn from what I have just stated. The theory of spiritualism (evocation of spirits so as to explain occult facts) is unlikely. Before being admitted as true it should afford positive proof. But such proof has not been given as yet. Mediumistic messages include nothing that may not come from the medium's³ disaggregated polygon, and bear no mark whatever of an outward influence.

¹"Should the medium be of American or English origin, the spirit does not believe in reincarnation; on the contrary, he admits it, in case he is French, or German, or Italian, *i.e.* in countries where Allan Kardec's influence is prevailing, as well as the doctrine of reincarnation."—Charles Richet, work quoted in *Annales des Sciences Psychiques*, 1905, p. 33.

²To this question: "Is it possible for a spirit evoked to afford proofs of his identity?" Gaston Méry gives the following answer: "As far as I am concerned, I do not think so" (*Echo du Merveilleux*, 1906, p. 23).

³From this may be inferred that, if I am sticking, throughout this book, to the word "medium," like Flammarion, I use it no longer according to its etymological meaning, "as it had been imagined when spiritualistic theories were first taught, asserting that the subject—man or

They frequently contain gross mistakes and have failed as yet to formulate doctrines concerning the life of the beyond that are unanimously adopted by believers.

As has been rightly said by Flournoy, "Anything that may be explained (according to the empiric and phenomenal sense of the word) by certain individuals—Mr. So-and-so, or Mrs. Z., or by their past, their actual condition, their known faculties—should be ascribed to them, and it would be unfair to attribute these groundlessly to another unknown being. The so-called 'mediumistic messages' are merely caused by the medium's subconscious imagination, working on latent preoccupations or reminiscences. Even in a case when for want of satisfactory evidence it would be impossible to prove that messages are not exclusively issued by the medium, we ought to presume so till proof of the reverse is given. The practical conclusion to be drawn from it is that it is puerile and imprudent to deal with spiritualism as showing real intercourse with disembodied spirits."

Camille Flammarion in commenting on answers obtained with a table writes (*La Revue*, 1906, p. 37): "The medium's mind and the mind of experimentalists have certainly a part in it. The answers obtained are usually in correspondence with this intellectual condition, as if the powers of experimentalists had been exteriorized from their brains and had an influence over the table, though such persons may not be conscious of it."¹

woman, endowed with such powers—was an intermediate agent between spirits and experimentalists."

¹According to Jules Bois (*Le Matin*, March 30, 1908), phenomena called mystical, occult, spiritualistic or theosophical—*i.e.* the wonderful or the modern miracle—have no connection whatever with the beyond or with the existence of God and the survival of the soul. Those facts are the work—either conscious or unconscious—of man himself, of living man. They are caused by powers unknown as yet, or by a combination of powers known already. No external interference is necessary, except as a stimulus, but never as a cause.

Charles Richet says, after having indicated the absurdities of spiritualism: "But should the facts be real, and this is possible, after all, I should feel obliged to turn over the proposition, and assert that it was absurd to deny those facts." There is no proposition to turn over. An absurdity it would be to maintain the theory of spiritualism and to infer from the downfall of this theory that facts are not really existing. For the present my conclusion is against the theory of spiritualism, the criticism of facts remaining untouched.¹

¹There is not one man of "science, even though he be an adept in the soul theory, who is a believer in spiritualistic, theosophical or occult doctrine: to him, the fact only is of value" (Jules Bois, p. 10).

CHAPTER VIII

PSYCHICAL RADIATIONS—PERISPIRIT—ASTRAL BODY—RADIANT PSYCHICAL FORCE

I. ACCOUNT OF THE THEORY.

67. *The occultist doctrine; Perispirit; Astral Body.*

68. *Other scientific forms of the doctrine.*

a. *Psychical radiations.*

b. *The apparatus to measure them.*

II. DISCUSSION OF THEORIES.

69. *Most of them bring forth as proofs only the power of exteriorization, which they try to explain.*

70. *The biometers have not proved the existence of a power irreducible to the other known forms of power (heat, electricity).*

71. *Should this new power be proved, nothing would yet demonstrate that it is a connecting agent between two separate psychisms.*

III. 72. CONCLUSIONS.

Opposed to the doctrine of Spiritualism is the theory of human radiations, which, under its actual aspect, is certainly far more conformable to reason and science than the former.

I. ACCOUNT OF THE THEORY

67. THE OCCULTIST DOCTRINE, PERISPIRIT, ASTRAL BODY.

This doctrine has been set forth in its occultistic form, with great skill by Dr. Encausse (Papus) in his book already quoted: "L'Occultisme et le Spiritualisme." It is a modern revival, an outline written in actual scientific language of the old occultistic doctrine whose origins, venerable by its antiquity, I have stated above. There is between the Ego and the non-Ego, between the Mind and

Body, one or several intermediate principles. As a rule, the Trinity prevails over all secondary divisions (doctrine of the Tri-Unity); there are three plans in nature, and, in man, three principles; this is the theory of the plastic mediator.

In man, between the immortal mind and the physical body, there is an intermediate agent, which has organs and faculties that are absolutely peculiar. This intermediate principle, special to Occultists, is the astral body, twice polarized and connecting the inferior physical with the superior spiritual. Man is thus compared to an equipage whose carriage is represented by the physical body, the horse being the astral body, and the coachman the mind. This image perfectly shows us the characteristics of the astral body, which is really the horse of the organism: it puts it to motion, but does not manage it. The great sympathetic is as the horse of the organism: it manages alone when the driver is asleep.

“The astral body being like a housewife in the human being, presides over the making of all the organic forces, and especially the nervous force. This nervous force is acting as regards the mind in the same manner as electricity towards the telegraph operator; the material brain resembling the telegraph.” Such is the beginning—not utterly astounding as yet—of this theory, which only makes an excessive use of comparisons and images.¹

But here follows something more momentous and necessary for the making of the theory of exteriorization. This astral body, or plastic mediator (the horse of the organism) is luminous when seen apart from material organs: i. e. this

¹In the same manner as carbonate of soda combines oil with water (which are contrary to each other) so as to make a perfectly homogeneous soap, so the astral body unites the incorporeal oil with material water and makes a vital soap of them.

principle may radiate around the body in which it is normally enclosed. This coming out of the astral body, as it is technically termed, may be incomplete, i. e. partial or total. From this are derived occult phenomena, up to materializations and telepathies. Thus this astral body may radiate around the individual, constituting a sort of invisible atmosphere termed "astral aura," and it may even be absolutely exteriorized.

This intermediate agent is the luminous body (Khâ) of the Egyptians, the carriage of the Psyche of the Pythagoreans, the plastic mediator and universal mercury of Hermetists, the astral body of Paracelsus. This latter name (adopted by Encausse Papus) was given because this element derived its principle from an interplanetary or astral substance.

"The astral body is an organic reality; one may, in this respect, compare it with the photograph; the astral plan is merely, in the occultist's view, the plan of negative plates or molds, and physical objects are only proofs printed, every one of them, in various numbers of copies by special spiritual agents."

Besides, on the astral plan, the evolution from one type to another immediately superior is taking place. Thus, for instance, "the mold of the body of a dog after the sufferings of an earthly incarnation (or a physical incarnation on any planet whatever) becomes the mold or astral body of the future body of a monkey. As to mind, reincarnation consists in coming back several times on the physical plan, without any necessity of time or place, i. e. the spirit may come either ten years or two hundred years after the physical death, and its return may happen on any planet whatever of a material solar system."

Moreover, in the astral plan, are also found entities endowed with consciousness, the "spirits" of spirit-believers,

and the "elementaries" of occultists. Those are the residences of men who have just departed this life and whose souls have not undergone all the necessary evolutions. Therefore, the elementaries are human entities that have performed evolutions, while the elementals have not yet passed through mankind. Thus, there are several classes of spirits:

First. The elementals inferior to human beings are mortal, but may acquire immortality by rising to human nature. Under this head are included the *sylphs* (spirits of air); the salamanders (spirits of fire); the undines (spirits of water); the gnomes (spirits of earth) of the ancients and of the Rose Croix. These are spirits who are neither good nor bad in themselves, and who, during séances, enjoy themselves at the expense of the bystanders or mediums, pretending to be Charlemagne or Victor Hugo.

Second. These are the spirits equal or superior to human nature: "elementaries, planetary spirits of the cabala, angels, demons, astral spirits. They have a will of their own and come at the time of evolutions or conjurations only when willing or when compelled to do so." At death "the physical body or carnal wrapper goes back to earth, to the physical world from which it had come. The astral body and the physical being, illuminated by the memory, intelligence and will of earthly remembrances and actions, move on the astral plan, especially to upper regions where they become an elementary being or a spirit."

Let us suppose that our reflection in a mirror is persisting after our departure, with its color, its features, and all the appearance of reality. We will then have an idea of what may be meant by the astral image of a human being. Besides, any object might relate a part of the facts it has witnessed. Psychometry consists in placing an object on someone's forehead; then his soul is perceiving directly a

series of images related to the most momentous facts in which the object played a part.

Likewise, regarding man, "Every one of us is carrying around him a radiance which the carnal eye fails to perceive, but it is visible to the soul that is used to it. This radiance is termed 'aura.' From this is derived 'the registering of ideas in the invisible.'"

It seems that we do not find our way through the outline of those ideas; still I am not going beyond my subject-matter. For it should be known that in occult facts the modern occultist does not view an influence of the spirits, but merely an action at a distance on the part of the medium's astral body. Besides, says Encausse, "The substance constituting those fluids surrounding the being evoked, is very similar to electricity. This is the reason why metallic tacks were used in this sort of evocation.¹ The use of a sword, a cup, or of talismen, as well as the use of words loudly spoken, are intended for action upon the astral of nature, and upon beings that live in it."

Such is a summary of the occult doctrine in its most recent synthesis. There is discoverable a deep preoccupation in efforts to make a scientific matter of it. "Once more,"

¹In the case of the haunted house I have described with Calmette, someone writes to the *Echo du Merveilleux* in order to get advice, and here is the answer: "As a rule, the medium is a kind of human voltaic battery that emits something analogous to electricity. The best way to check the phenomena, is to pierce through the air with iron tacks or swords, for instance, not—as was formerly asserted—in order to cleave spirits, but so as to obtain the electric clouds caused by mediums, in the same manner as we draw, through lightning conductors, the electric clouds that are floating through the air."

"And in fact, a few days later, the noise and the removals having occurred again, the medium's grandfather took a stick fitted with a spear, held it at rest, ready to cleave asunder, and then he whirled his sword about, cutting and thrusting fiercely, in every direction, around the bed and under it. Finally he ceased, as he was worn out. The bed was still shaking."

says Papus, "there is nothing supernatural about all these matters; they are merely natural questions, a little more eminent than those usually known to us and that is all. The more we investigate, the more we may notice that there is nothing contrary to the positive teachings of actual science.¹

In a subsequent work, Phaneg² has insisted upon the "coming out in the astral body." By this experiment the double fluid is made to go out of the coarse organism and is replaced by consciousness. The material body is apparently motionless and lifeless, and our mind acts with the help of the astral body. The adept, in his conscious astral "coming out," may meet with a metallic tack that will dissolve the fluidic agglomeration and cause a repercussion on the physical body. Should the vital center be touched, death is undoubtedly forthcoming. Then the astral world in which one is evolving is dwelt in. Many of its inhabitants are quite inferior and long for a physical life. They may completely enter a rough body, and on coming back the spirit may find that its place is occupied. Then, madness or death is at hand. The adept would readily reach a beautiful country whose dangers he has been able to avoid, but he would fail to remember the beauties he had viewed, the information received, unless his physical brain has been trained to reflect impressions plainly."

L'Echo du Merveilleux is of opinion that this matter is interesting, but that (with some probable proof) it does not fulfill all that its title anticipated.³

¹Cf. also Papus, "Traité" (quoted), *de Science Occulte*, and "La Physiologie du Médium." "L'Initiation" (*Echo du Merveilleux*, 1906, p. 400).

²Phaneg, "La sortie en corps astral." "L'Initiation" (*Echo du Merveilleux*, 1904, p. 479).

³Cf. also Georges Meunier, "Les sorties en astral." "Les expériences de M. Pierre Piobb," *Echo du Merveilleux*, 1907, p. 269.

68. OTHER SCIENTIFIC FORMS OF THE DOCTRINE.

a. Psychical Radiations.

Léon Denis says in his account given to the congress held in Paris¹ in 1900: "The psychical being is not confined within the limits of the body; it is capable of eccentric moving and of being released. One might compare man with a fire-grate from which are issued radiations and effluvia that are capable of being exteriorized into strata concentric to the physical body, and even in certain circumstances may be condensed to various extents and be materialized so as to impress photographic plates and registering apparatus. The vibrations of thought may be diffused throughout space, such as light or sound, and impress another organism congenial to the experimentalist's organism. Psychical waves, like hertzian waves in wireless telegraphy, are spread far away and arouse within sensitive people impressions that are different by nature, according to the dynamic condition of such persons: visions, voices or movements. Sometimes the psychical being will come off its corporeal wrapper and appear at a distance."

This reminds us of Charles von Reichenbach.² This author first proceeds from the sensible influence exerted by the magnet over the human organism. "This is," he says,

¹Léon Denis, "Psychologie expérimentale." "Phénomènes d'extériorisation et de dédoublement," IV Congrès international de psychologie, Paris, 1900, p. 614.

²Baron Charles de Reichenbach, "Les Phénomènes odiques ou Recherches physiques et physiologiques sur les dynamides du magnétisme, de l'électricité, de la chaleur, de la lumière, de la cristallisation et de l'affinité chimique, considérés dans leurs rapports avec la force vitale." Trad. Ernest Lacoste, préface d'Albert de Rochas. Collection des meilleurs ouvrages étrangers relatifs aux sciences psychiques traduits et publiés sous la direction du Colonel de Rochas, 1904. The first edition was issued at Brunswick, 1845; a second edition appeared in 1849. An English translation has been published in London, 1851, by John Ashburner.

“a fact absolutely verified, a physico-physiological principle obviously included in nature. Perceptions of this influence are chiefly obtained from touch and sight. This action is also exerted by our globe, by the moon, by any crystal whatever (natural or artificial), by heat or rubbing, by electricity, light, sunbeams and stars, by chemical force, by an organic vital force (as well in plants as in animals, especially in man), and by the whole of the material world. The course of such phenomena is a peculiar natural force that is extended to the whole universe, and differs from all forces known up to the present. Here I term it ‘odum.’”¹

In his book already quoted, Edmond Dupouy writes: “Magnetic fluid, odic or vital fluid wholly saturates the organism of living beings. The psychical body lies exactly in the middle between the matter and the spiritual soul. The nervous fluid is made manifest by physical phenomena that our senses are able to perceive—luminous effects through the tubes of Geissler, or through the tube and ampulla of Crookes; the growth in our organism of Röntgen rays, even without contact, the transference of sonorous waves; the issue of effluvia that become visible and may be photographed.” His conclusion is that “there are three elements in the human body: the soul, the psychical body and the organized matter. The limits of the psychical body are not fixed by the cutaneous wrapper. It is continually surrounded by luminous effluvia, visible to sensitive subjects or to mediums. It may be exteriorized in them within an unlimited neurodynamic field, and be made manifest in peculiar circumstances by various psychological or mediumistic phenomena.”

¹*Cf.* also Baret, “La force neurique,” *Revue de l'hypnotisme*, 1888, and “Le Magnétisme animal étudié sous le nom de force neurique,” Pierre Janet, *Revue Philosophique*, 1888, and Albert de Rochas, “Les propriétés physiques de la force psychique,” “Les frontières de la science,” 1902.

Surbled¹ says that by "magnetic fluid" is usually meant "a subtle and impalpable fluid, analogous to the fluid of mineral magnetism, but peculiar to living beings. It depends on volition and is capable of being transferred to others of our own accord, or through the laying on of hands and the performance of swift movements called 'passes'(?)". He believes that it will be possible to prove that the magnetic fluid is nothing but the vital electric fluid. He finally comes to this conclusion: "I am sure that the so-called magnetic fluid is nothing but the vital electric fluid, whose existence will be soon verified and settled." Dr. Baraduc² has recently stated to the Court of Justice at St. Quentin that, in his opinion, "Each segment in our organism—cerebral segment, pulmonary segment, gastric segment, genital segment—has a radioactivity of its own, an area of vibrations varying in nature; that, owing to their power of emanation, they may exert a telepathical influence, a kind of wireless telegraphic action over the passive radioactivity of another person in a condition of vital hypotension."

*L'Echo du Merveilleux*³ quotes the following passage of a book of Bué ("Le Magnétisme curatif"): "One may easily get a clear idea of the impression made on plants by our radiant action, by operating with hyacinth or tulip bulbs. By affording proof of the real influence of man over animals and plants, those facts undeniably show us that this action, merely dynamic or physical, depends on the natural power of man to regulate, condense or extend, owing to his force of volition, his magnetic or neuric radiations on all substances around him, and even to modify their waves."

¹Surbled, "Spiritualisme et spiritisme," Bibliothèque des science. psychiques, 2d ed., 1898, p. 160.

²"Sur les rayons humains d'après Baraduc"; cf. Jules Bois, *loc. cit.*, p. 38 and seq.

³*Echo du Merveilleux*, 1905, p. 33. Cf. also the number of July 15, 1904.

Stenson Hooker¹ has studied the spectrum of human rays. The violent and passionate man emits dark red-brown radiations. Pink radiations are issued by the man whose constant aim is kindness and benevolence. The ambitious man produces orange-colored rays. A proverbial thinker emits dark blue rays. Yellow rays are perceivable in the individual fond of art and of refined things. An anxious and deprest person emits gray radiations. The man leading an abject existence emits dull brown rays. In an individual steeped in devotion and good feelings light blue rays are glowing. He whose mind is fond of improvements emits light green rays. Those sick in body or mind produce dark green rays, etc.

Phaneg² says: "Occultism testifies to the existence of a principle more subtle than ether, over which time and space exert an action that is almost void, in relation, of course, to our actual concepts. Besides, man has organs that are quite fit for answering the vibrations of the astral matter. When a human being causes another to feel a sensation at a distance, his physical organs are not the first to experience this influence, but his fluid body. The latter is so strictly going through the rough vehicle that when interactions take place between both individuals, and when one of them is feeling a sting, the other body experiences it also and at the same place." Albert de Rochas declares that "among the numerous theories that attempt an explanation of psychical phenomena, the one which actually appears as being next to the truth, is the theory of the astral body."

Boirac also views the matter in this way, and he discusses as a "mere supposition, how the human organism is able to

¹J. Stenson Hooker, "Sur les radiations humaines," *The Lancet*, Nov., 1905, *Annales des Sciences Psychiques*, 1906, p. 315.

²Phaneg, "Etude sur l'envoûtement," lecture delivered at the Society for Psychical Researches, at Nancy. *Echo du Merveilleux*, 1906, p. 74.

exert, at a distance, over other organisms and perhaps over material objects also, an influence more or less analogous to that of psychical radiant forces, such as heat, light, electricity." A general problem is coming before us, i. e., the unity of psychical force. He acknowledges the hypothesis of human radiation and various stages of condensation of the psychical force. Under this theorem he tries to preserve, or rather revive, animal magnetism. His conclusion is: "I am unable to deny that magnetic or nervous radiation is as much a fact as the radiation of light or heat."

He discusses the relations of telepathy to animal magnetism, according to the book of Gasc Desfossés on "Le Magnétisme vital." He says that in case will and thought are able to keep in correspondence with each other, from one brain to another, all these analogies not only will enable us, but also oblige us, to view in this phenomenon only a peculiar consequence of any general essential faculty of cerebral and nervous cells that are, so to speak, anterior to will and thought themselves. What could such a faculty consist of except of a kind of expansion or radiation of the nervous force, easier to understand owing to the phenomena of heat, light and electricity? Boirac cites also certain experiments he has made and which he thinks to be "cardinal." He sums them up as follows:

First Experiment.—A subject who has blindfolded himself, is given advice that he must without any question whatever declare all the contacts he is to experience, and all the impressions at large he is to receive. Without a word an experimentalist places his hand before some or any part whatever of the subject's body, at a distance of five or ten centimeters. Without speaking, another person touches the subject's body with a rod in several parts; the spot pointed out by the experimentalist's hand being included. After a rather short while (thirty to sixty seconds) the subject goes

on declaring that all parts of his body were touched with the exception of the spot indicated by the experimentalist. In case one replaced the operator by a neuter individual (i. e. by one who does not exert a magnetic or psychical action) and who holds out his hand in the same manner, no result will be produced, even after five or ten minutes. In other words the subject will keep on declaring the touches indiscriminately.

One may infer from that first experiment at least an hypothetical conclusion to be ratified by subsequent experiments: *First*, that the human organism is radiating at a distance, at least through the hand, or through an influence that can have an action over another organism, at least the organism of the subject, and to cause in it an appreciable modification—anesthesia, for instance. *Second*, that this influence is not issued by all human organisms, or rather, is not emitted by all with a strength sufficient to cause an appreciable result.

Second Experiment.—A subject being placed in the same conditions as before, a neuter individual is operating on him, as has been previously stated. As soon as it has been perfectly proven that his individual influence is apparently of no force—i. e. fails to cause an appreciable result—another operator gets into contact with him either by taking hold of his hand, or in any other manner whatever. It is then shown that after from thirty to sixty seconds or a little more, the subject ceases to declare that blows are struck on the spot indicated by the neuter individual's hand.

“One may infer from this experiment at least, as a hypothetical conclusion to be ratified by subsequent experiments: *First*, that radiations issued by active persons are received by neuter individuals, and that they go through their organism, although it is express therein by no ap-

preciable result. *Second*, that they are externally transferred by those neuter individuals and, after having gone through them, still preserve their faculty of exerting an influence over subjects and causing in them an appreciable result, i. e. an anesthesia.”

Such experiments may be compared to those which follow as regards the exteriorization of sensibility.

With an individual having undergone anesthesia on a part of his body, owing to an influence, as in the experiments above quoted, the air is griped at a distance, a little above the anesthetized spot; the subject's hand suddenly makes an abrupt movement¹ although the subject has no conscious sensation of it.

“The experimentalist holds in both hands for a while (about five minutes) a glass half filled with water; one of his hands is placed underneath and the other above it; then he goes toward the subject who previous to this has been placed in a condition of somnambulism and closely blindfolded; he gives him the glass of water to hold with one hand, and enjoins him to dip one or two fingers of the other hand in it. This being done, he comes back to his own place at the other end of the room, and without a word requests by signs one of the bystanders to pinch or prick the hand he has placed over the glass. As often as the experimentalist is pinched or pricked the subject trembles, and spontaneously declares that he has been stung or pricked on the responsive part of his own hand.

“In the next place the experimentalist, after having held for a while a glass of water between his hands as in the previous experiment, places it on a table within reach of one of the bystanders; then he goes to the other end of the room

¹De Rochas was the first to survey the facts of exteriorization of sensibility. Cf. Boirac, *loc. cit.*, pp. 252, 264, 271. See also Paul Joire's work in the *Revue de l'Hypnotisme*, Jan., 1898 (cit. Boirac, p. 329).

towards the subject who has before been placed in a condition of somnambulism and has blindfolded himself, and he takes one of the hands of the subject between his own. From this moment, as often as the onlooker is making a sting or a pinching, or any contact whatever over the water in the glass or in the air above it, the subject is trembling and spontaneously declares that he feels responsive sensations."

I have thought convenient to quote here these strange experiments, though Boirac himself is of the opinion that they should be methodically reproduced and verified by many experimentalists, and though he feels regret that de Rochas has swerved from the strict method which he had so admirably practised up to that time.

With regard to the experiments of Colonel de Rochas, who transfers the sensibility of a subject to a small statue, Maurice de Fleury has shown that the experiment was notwithstanding successful, in case the statuette which had been deemed to be loaded with sensibility was replaced by a new one. "As far as I am concerned," adds Jules Bois, "I have proven that it was sufficient previously to make to the subject a suggestion that the experiment would be successful, so as to make it succeed indeed." And further he writes: "As to his so-called discoveries of the eccentric projection of sensibility and movement,¹ whose theories he has set forth, they should be given up, either because they rely upon dubious facts, or because they interpret by means of a physical illusion, a phenomenon that is absolutely mental only.

b. Apparatus Used to Measure Them.

Various kinds of apparatus have been devised in order to establish or measure this radiant psychical force. They all lean upon the essential faculty some subjects have of

¹See further part III, chapter XI, II.

exerting an influence, either attractive or repulsive, over objects surrounding them. Arago in 1846 and Dr. Pineau in 1858 observed such a faculty with certain patients. In 1868 Bailly asserted in a thesis the existence of a nervous radiant force, and Barety of Nice outlined in 1887 the character of this force. In 1887 and 1895 de Rochas investigated the effluvia issuing from the human body in his books on "Les Forces non définies," and "Exteriorisation de la sensibilité."¹

Papus² says the first apparatus ever devised to measure this radiant force was the marvelous biometer of Louis Lucas, whose basis is the galvanometer. Next came the biometer of Abbé Fortin, who first laid down biometrical formulæ, and extended his researches to meteorology. Dr. Baraduc devised another biometer after Abbé Fortin with a slight modification. Finally, Dr. Andollent brought forward a biometer-galvanometer with a plentiful rolling up of thread. The power acting over those biometers passed through cold water. Far from passing through metals, it is on the contrary repelled by them, since the rotation of the metallic needle is regulated by the blow of effluvia on the needle suspended by a cotton thread.

In the middle of the nineteenth century Lafontaine,³ a magnetizer said: "One should take a needle made of copper, or platinum, or gold, or silver, and bored in the middle, then hang it horizontally with a silk thread in a glass receptacle being about 20 or 30 centimeters high and absolutely closed. Then one should seek to produce action on that needle by bringing close to one of its ends through the glass the finger-

¹Jules Regnault, "Phénomènes odiques et radiations nouvelles," *Annales des Sciences Psychiques*, 1905, p. 174.

²Papus, "Le radium, les rayons N et l'occultisme," *L'Initiation*; quoted by *L'Echo du Merveilleux*, 1904, p. 119.

³Cit. Surbled, *loc. cit.*, p. 233.

ends at a distance of about 5 or 10 centimeters. Under the magnetic influence one would see the needle turn on the right or on the left, according to the experimentalist's wishes. Since 1840 I have made experiments on the galvanometer, and I have been able to ascertain that the action of the animal magnetic fluid over the magnetic hand is the same as that of the mineral magnetic fluid."

Here follows a description of the magnetometer of Abbé Fortin.¹ The condenser that is directly communicating with the ground at its basis is resting on the pedestal. It is made of twisted tinfoils, but set apart by an insulating body. There is over it a metallic multiplier made of a long thread whose windings are insulated. Lastly a magnetic, but not magnetized, hand is moving over a dial divided into a certain number of partitions. The biometer of Baraduc² is, as the author himself declares, the magnetometer of Abbé Fortin, as it was designed for him.

In 1904 Dr. Joire³ described in the following manner a sthenometer that enabled him to assert the existence of a special force which, being transferred to a distance, originates in the living organism, and seems to be specially dependent on the nervous system. "The apparatus consists of a pedestal made of any suitable substance whatever. Its surface is divided into 360 degrees like a dial. In its center the pedestal is bored, and in the middle of the hole is fixed ver-

¹Foveau de Courmelles, *Revue Universelle des Inventions nouvelles*, 1890, p. 104 (citat. Surbled).

²Baraduc, "La force vitale." "L'âme humaine, ses mouvements," etc., (citat. Surbled). See also Dupouy, *loc. cit.*, p. 32.

³Joire, "Etude d'une force extériorisée par l'organisme vivant, et observations faites au moyen du sthénomètre," *Annales des Sciences Psychiques*, 1904, p. 243; and "De l'emmagasinement de la force nerveuse extériorisée dans différents corps," *Echo du Merveilleux*, 1906, p. 167. See also, some attacks made on the sthénomètre and the reply made by Dr. Joire, *Annales des Sciences Psychiques*, 1906, p. 752.

tically a glass pillar whose end is hollow. A very light needle, usually made of straw, is placed over the dial. A tack or metallic point makes a kind of needle attached to the pedestal. One of the ends of the needle bears a counterpoise suspended by means of a thread so as to maintain the needle in a horizontal position. The pedestal is fitted with a shade that shelters the needle from the movements of the air."¹

II. DISCUSSION OF THESE THEORIES

I have thought well here to group these various theories, as they all involve serious objections.

69. Most of them (astral body and perispirit) afford as proofs nothing more than the very facts of the exteriorization of the force which they try to explain. Therefore they merely express in other words those very facts. In consequence they cannot be established in another manner than by an explanation of the facts which I shall examine in the following pages (B of this same part).

When Papus (see above) comes to the conclusion that "there is nothing in his doctrine that is contrary to the positive teaching of our actual sciences," one may say that such an assertion gives signs of over confidence. It is, at least, impossible to declare that all in this doctrine from that moment has become scientific. *First*, there is in it a part that undeniably belongs to philosophy or religion, and is accordingly absolutely outside positive science. Such is the *astral* part of the theory (according to the etymological sense of the word)—the notion of incarnations and reincarnations of the astral body as well as the notion of the coming out in the astral body, and of spirits superior and inferior to man. A whole system of philosophy is included

¹See also Albert Journet, "Résurrection" (*Echo du Merveilleux*, 1905, p. 379).

therein—one might even say a whole religion which I do not discuss (such is not my business here), but which does not belong to positive science.

The author is obviously mixing the various modes of understanding when he proclaims that, “owing to the archeometer framed by Saint-Yves d’Aveydre, the artist and the scientist will, at last, be able to communicate under the same elements the Word of God as coming from Christ speaking freely throughout the universe, while human brains are registering with due reverence the waves of divine life that are disclosed to mankind.” Such language can apply only to extra-scientific ideas. It is a part of occultistic theories which is absolutely beyond my province.

But there is, aside from this, another part that requires an explanation owing to its scientific way of proceeding—scientific, that is, in spite of strange terms which remind us to an excessive extent of magic. This is the part concerning the possible eccentric projection of the individual. There are real facts in it—facts that involve scientific investigations; such is the notion of the astral body, i. e. the horse of our organism, whose part is played by the great sympathetic nature and which alone manages our organism during sleep, while the driver is taking a rest. We find here a somewhat peculiar conception of physical automatism, such as I have studied and applied in the second part.

But this notion is at once completed by the idea of the outward radiance of this astral body, and of its coming off from the organism. I believe I am in a position to declare plainly that this necessary part of the occult theory is not in the least scientifically verified.

Encausse asserts that his whole system is resting on facts “that are related to intuition, telepathy, prophetic dreams and alterations of the matter under the influence of this

force issued by man, which is termed psychical force." Now, there is nothing in all this that has been scientifically verified, although the author says that "on all those points one should be convinced that the astral body is an organic reality"; and although he tries to ascribe a positive and anatomical basis to his proof by recalling the disposition of the sympathetic. His description of the plexuses is right, but he makes a tremendous leap when he says that the plexuses are "the organic centers of action of the astral body and fit for exteriorization," This is not verified at all, but is still new and important.

Occultists have had a propitious occasion in which to mount the scientific rostrum and bring forth their facts and submit them for survey by true and impartial scientists. This was at the Fourth International Congress of Psychology, held in Paris in 1900, Ribot acting as chairman and Pierre Janet as secretary. The fifth committee, presided over by Bernheim with Hartenberg as its secretary, was devoted to the "psychology of hypnotism, suggestion and connected matters." All the occultists had an opportunity to set forth their facts and submit them to the estimation of the most eminent and competent scientists of the whole world.¹

Gabriel Delanne, the editor of the *Revue scientifique et morale du Spiritisme*; Léon Denis, the chairman of the Society for Psychical Research at Tours; Gérard Encausse, the editor of the *Initiation*; Dariex, the editor of the *Annales des Science Psychiques*; Durand de Gros, Paul Gibier, Mme. Verrall were allowed to speak. By a wide and lawful liberalism the platform was made accessible to all occultists, and the most famous and eminent among them made statements. The unanimous conclusion was that in this whole

¹Cf. "Le Compte rendu du IV^e Congrès International de Psychologie," Paris, 1900, p. 609.

range of exteriorization nothing had been scientifically verified as yet outside facts known already.

Vaschide declares that he listened with the most careful attention to those statements, "and although we are in a scientific circle here, I only find words, words, and nothing else but words. It is not enough to say that a fact has been vaguely observed and to set it forth as if it had been scientifically observed. On this point our methods are unrelenting and words are of no value." Oskar Vogt of Berlin made a statement against occultists as invaders who cause peril "owing to the production of anti-scientific documents."

Bernheim concluded this discussion in the following words, which his eminent standing makes peculiarly weighty: "As to the matter of psychical or paranormal phenomena, I deem it prudent to defer the expression of my opinion. Those advocating their reality should afford us irrefutable proofs. I shall be only too glad to admit facts. But, for this purpose, facts should be brought forth and verified as to their reality. Afterwards only, it would be possible to draw conclusions and frame theories from them. As far as I am concerned, I confess I am not yet convinced. I have seen many subjects and mediums. I have been present at many experiments, but I have always found ground for errors that prevented me from getting something certain."

Such is the opinion of competent science respecting occult science as synthetized by Papus-Encausse in the book above referred to. Occultists moreover have not complied with the position taken by the Congress of 1900. Becker¹ says: "It was impossible to refuse admission at the Congress of 1900 to writers of our sect, and we were cheered

¹Becker, article quoted in *Revue Scientifique et Morale du Spiritisme*, p. 734.

when we saw that the most daring gainsayers either did not answer us at all, or, in case they ventured to dispute us, failed to make the most of the opportunity. One may say that only the momentous sittings were devoted to that prominent topic.

Papus¹ writes also: "Those who were present at the Fourth International Congress of Psychology will be astounded when reading that 'the unanimous conclusion is that nothing has been scientifically verified as yet.' We are still enjoying ourselves at the bewilderment of this pseudo-scientist, who gave out as original and personal discoveries some that were made five hundred years before Christ, and was put back into his old place by occultists through quotations of texts, and we cannot help making fun of one who, having imagined that neurones are able to stretch out, protested against occultistic hypotheses. In fact, no answer has been given to the many facts submitted by spiritualists. The actual lectures of Dr. Grasset² are, on the contrary, the best proof that occultists were successful at that Congress."

This congress (and my lectures, in a more modest manner), obviously testified to the increasing interest taken by scientists in those matters. Nobody has denied this, as nobody has denied the "sensational" bearing of the sittings devoted to this topic. Still, I believe there is nothing in the above quotations to upset what I have stated regarding the failure of this congress from an occultistic or spiritualistic point of view.

Papus acknowledges that there is still something better to be done for those sciences in congresses since, speaking further about experiments made so as to register words and thoughts on gelatine-bromide plates, he says: "Therefore, we advise all experimentalists in psychology to prepare

¹Papus, article quoted in *L'Initiation*, p. 244.

²Grasset, "Leçons de Clinique Médicale," 4th series.

experiments of this kind for members of congresses to be held in the future. This is a manner quite scientific, as it makes it possible at pleasure to answer questions on the part of polygonal psychologists."

It is certain that a congress in which such proof were afforded, would far better contribute to the advance of the matter of the exteriorization of thought than did the Congress of Psychology held in 1900. Thus, the question is still laid down in the same manner. One should not say with Goupil¹ that the spiritualistic hypothesis in its essential conception is absolutely scientific because it implies nothing irrational with regard to positive science."

This conception is not irrational, but it has not been proven; it is not a scientific conception as yet. Goupil acknowledges this when he says further: "The irrefutable and scientific proof of E (exteriorization of the psychical force) is not easily afforded; but it would be still more difficult to deny it." I do not deny the possible existence of this proof in future; but I deny its actual existence now.

It is equally impossible for me to accept the opinion of Goudard² when he says: "He who has surveyed spiritualism without any foregone conclusions is perfectly well aware of the fact that the words spirit and perispirit, soul and astral body, consciousness and unconsciousness (or subconsciousness, or subliminal consciousness), polygon and center O, etc. are only various coatings of the same concept." On the contrary, those terms are quite dissimilar, and should be applied, every one of them, to different concepts. The words "polygon" and "center O" apply to

¹Goupil terms *spiritistic* an hypothesis analogous to that expressed by Papus, of exterior psychical forces. "The essential conception" of the spiritualistic hypothesis is, as he declares, a material fluid factor which is a particular condition of matter spiritually organized.

²Goudard, article quoted, p. 68.

neurones of the cerebral cortex and have nothing to do either with spirit or perispirit, or with soul and astral body.

Papus is equally mistaken (although in a reverse manner) when, in a series of paragraphs, he opposes the polygon to the astral body, as if we were obliged to choose between both hypotheses. Thus, he says: "Now, since we are dealing with Occultism, I like our notion of the astral body, which is traditional and simple as well for us as for the Hindoos, far better than those stilted geometrobiological hieroglyphs."

This is a misunderstanding and I want to clear it away. There is neither opposition nor solidarity between the scheme of the polygon and the conception of the astral body. They are things quite different. The scheme of the polygon applies to both psychisms, even to the inferior or subconscious psychism; the astral body applies to the exteriorization of the psychical or nervous force.

The two conceptions have no connection whatever. One of them may be true, while the other may be erroneous; they may both be true, or both false. A definitive disproof of the polygon would not afford even a slight touch of proof in favor of the astral body theory. In other words, the arguments advocating the astral body are not of more value against the polygon theory than arguments supporting the polygon are of value against the astral body. When I discuss the astral body, I do not make use of the polygon hypothesis at all.

Therefore, in case one might succeed in proving the exteriorization of psychism in a new manner unknown as yet, it will be a fresh acquisition for science; it will be another piece of knowledge to add to those we have already, and not one to replace another and previous piece of knowledge. This is the reason why I do not accept at all the opinion unfolded by Papus in the following words (p. 252): "The

main point of the debate is thought transference. It is readily perceived that there lies the vulnerable part of the polygon theory. This 'poor' thought transference (without contact of course) is very much like M. Prudhomme's saber; it is now used to explain disquieting spiritistic facts by scientific censors, and then strongly denied when it comes unseasonably to upset theories laboriously framed by leading scientists. In fact, should the possibility of psychical force acting outside the human being and without contact be once established, the polygon and its 'wonderful' adaptations would immediately break down." I confess that I fail to perceive how this conclusion may be logical. The scheme of the polygon is applied to the human psychism in its special, intrinsic and inner manifestation. Should a psychical force capable of being exteriorized be detected, it would be another chapter to add, and a prominent one, but this would not alter anything in the principles already known of a lower psychism.

Goupil has so utterly understood this, that, in order to adapt the polygon hypothesis to his doctrine of radiant fluid, he ascribes to it a sort of emissive power which he calls E.

In fact, when the exteriorization shall be subsequently verified, all previous theories of psychism will have to be completed, but none of them will be either ratified or invalidated by this fresh discovery.

Therefore, in aiming to conclude this chapter, which has been exceedingly extended, I do so neither in order to stick to my scheme, nor to prevent the academical skittle-ground from being devastated; it is not even because I take pleasure in denying "with vengeance,"¹ that I contest the theory of astral body and perispirit; it is only because I understand

¹See Gabriel Caramalo, "Manifestations Spiritiques," *Echo du Mervcil-leux*, March 15, 1903.

that it is leaning upon no scientific proof, and as I said above, that it is nothing else than a duplicate of the facts themselves. Now, we have no profit in framing a theory of facts already known and sorted.

70. Researches made with biometers, or with the sthenometer, try to give those theories an experimental basis different from the facts to be explained. In this respect they are far more scientific. Still, I do not think they have led as yet to definite conclusions.

The first (and principal) proof of this failure, is inferred from the fact that those various apparatuses have not yet established the existence of a new force, unknown up to the present, that is irreducible to other known modes of physical force (heat, electricity). This is precisely the main point to establish.

The principle of all these apparatuses is a light and unsteady needle repelled or attracted (through a glass shade) by the approach of fingers. We have no positive proof of a new physical radiation within. Some of these apparatuses even illustrate the electric nature of the influence; such is Dr. Puyfontaine's apparatus,¹ with which experiments have been made in Charcot's ward at the Salpêtrière. They consist of two astatic galvanometers, built by Ruhmkorff, "with a silver wire of 30 kilometers for the former, and of 80 kilometers for the latter. Their sensibility is obviously far superior to that of usual galvanometers whose wire, made of copper, is only 300 to 400 meters long." By means of two metallic insulated wires that come, each of them, to a milestone with a pressure screw, two electrodes (hollow metallic cylinders of about 3 or 4 centimeters in diameter) are held in the experimentalist's hands; in certain circumstances he sees deviations of the needle occurring.

¹Gasc Desfossés, "Magnétisme Vital; expériences récentes d'enregistrement," 1897 (citat. Surbled).

According to Surbled's¹ opinion, this is merely proof that "the organism does not act without emitting electric or calorific forces sufficient to stir a very sensible galvanometer." All the other apparatuses do not give us more useful information. "There is in all of them the same essentially vulnerable part; they do not comply with necessary conditions; they do not eliminate causes of errors: i. e. electric or calorific influences. The results verified are equivocal, and may always be ascribed to a fluid merely physical, electric or of another kind known already." Surbled concludes, after an analysis of Baraduc's works: "This vital force which he imagines, and tries to register with his apparatus, is it not simply a physical force, heat or electricity? This is most likely. What becomes then of the great preparations so laboriously displayed? They break down. The biometer would be used only to verify the physicochemical manifestations of life; and Dr. Baraduc's perplexed apologies are not to undeceive us. Neither the cosmical influences nor the physicochemical phenomena of life are put out of the question, or absolutely made free from blame by the precautions so solemnly called upon by our colleague."

Joire, whose sthenometer is the most recent, and in consequence very likely the best of biometers, has multiplied precautions in order to anticipate objections, but it seems that he has failed.

Jounet² writes: "This author declares that the needle of his sthenometer is not influenced by a red-hot iron. A candle placed opposite the needle of the sthenometer exerted, in fact, a rather inappreciable action, while the needle exerted an attraction of about 30°. But whether it be a red-hot iron or the flame of a candle, it is always dry heat.

¹Surbled, "Spiritualisme et Spiritisme," p. 221.

²Albert Jounet, "Expériences à reprendre et à vérifier." *Résurrection* (*Echo du Merveilleux*, 1905, p. 379).

I wondered if a moist heat, which is more analogous to a living being's heat, would not exert a more powerful influence over the instruments. This idea was ratified by the experiment. By placing near the sthenometer a kettle filled with hot water the needle was attracted by twenty degrees. Therefore, none of those apparatuses have established the existence of a new force, or a new aspect of a physical force already known.

71. Besides, should a demonstration be made of a new human radiation unknown before, it would be no proof that this new force was really a psychical force, or in fact an agent of direct communication between two separate psychisms. Now, as long as this has not been verified, nothing has been done.

Many a new radiation has been found quite recently, such as the hertzian waves of wireless telegraphy, X rays and N rays. Perhaps some of them have been declared too early; but there is a sufficient number of them that have been verified to enable us to think that there may be many more unknown radiations. When these new groups were detected occultists were in great joy; they believed they perceived therein the much longed-for scientific proof of their ideas. Such is not the case. It is not enough to detect new human radiations; one should also settle the workings of those radiations in cases of direct thought transference and their objectivation in cases of materialization. Such a demonstration has never been made or tried.

Dupouy has groundlessly made the following enumeration: "Luminous effects through Geissler's pipes, or through the pipe and ampulla of Crookes; growth in one organism, even without contact of Röntgen rays; transference of sonorous waves; issue of effluvia that become visible and may be photographed." From the undeniably scientific reality of some of these phenomena, one should not infer the reality

of others, and the analogy of these various radiations may not be involved by a simple assertion or a clever enumeration.

Jules Regnault¹ compares the odic radiations of Reichenbach with the new radiations (radium, N rays, etc.) and adds: "Is not the origin of all these radiations the same as the origin of Reichenbach's odum? Have they not, at large, the same essential qualities?" It is obvious that all new radiations and all those which are in store for us in the future "have the same origin as Reichenbach's odum." But I cannot insist too much upon the fact that the discovery of any new physical radiations whatever, does not help us in the least to detect the psychical radiations we are looking for, in the same manner as the invention of wireless telegraphy has not caused even a slight advance of the matter of telepathy.

In order to establish that a new radiation is really psychical, it would not even be sufficient to demonstrate that the more or less intense issue of this radiation is related to the psychical activity itself. The influence of a cerebral work over a thermoelectrical battery was surveyed long since. Therefore, in case the existence of N rays is a fact, their issue might be somewhat related to psychical activity, and no one should see there the demonstration of psychical radiations necessary to telepathy, or simply to mental suggestion.

De Puyfontaine pretended to exert an influence over his galvanometer by means of his will, and to manage voluntarily its needle on the right or on the left. The experiment has not been made again and the fact remains quite debatable.² But even should it be established, it would prove

¹Jules Regnault article quoted (p. 175).

²"M. de Puyfontaine's experiments are neither conclusive nor definitive. They should be made again and developed, previous to being accepted by science" (Surbled, *loc. cit.*, p. 229).

nothing; one might understand that an intense psychical act is likely to have an electric influence over the needle, i. e. be related to a special issue of electrical forces as well as become likely to have an electric influence over the needle, i. e. be related to a special issue of electrical forces just as one might understand that all psychisms are not equal before the galvanometer.

III. CONCLUSIONS

72. From all that I have just stated, I think I am in a position to conclude that the theory of psychical radiations is, for the present, not better verified than the theory of spiritualism.¹

Still, one should maintain a distinction between the two theories. The matter of spirits, their survey and their evocation, imply the existence of a spirit, and at the same time its survival to the body. Those are prominent questions that are arising within our mind, but they are not within the subject-matter of science, such as I view it here, i. e. biological science. Therefore, they are outside science, even the science of to-morrow.

On the contrary, the matter of the perispirit, of the fluid, and of the eccentric projection of sensibility and movement, which has not yet been solved by actual science, may be settled by future science. It is not outside the range of possible biological science.

Therefore, let us suppose that when the exteriorization of the psychical force shall be absolutely verified, it will be easy to frame theories in order to explain it in the group of psychical radiations; but one should first establish that the

¹"It is said that spirits of the deceased, or angels, or demons, are intervening during séances. I do not think this credible. It is said also that there are human effluvia. I do not believe this either" (Jules Bois, *loc. cit.*, p. 92).

facts are real. Is such a group of facts actually possible? There lies the main point of the question which I intend to discuss, after having dealt briefly with the independence of Occultism regarding various philosophical or religious doctrines.

Dr. Bonnaymé has (April 9, 1907) delivered before the French Society for Psychical Researches an important lecture on "the psychical force and the apparatus used to measure it."¹ In my opinion the lecturer does not avoid the errors of ratiocination of which I have spoken above, when he infers, from Blondlot and Charpentier's experiments on the N rays, from those of colleagues on dynamoscopy and bioscopy, and from those of Joire with the sthenometer, that "we are gradually marching on towards knowledge of the soul owing to experimentation, and we may imagine that the day is coming when the sublime hope of a survival and of an indefinite improvement amongst people of the beyond will be utterly ratified by science."

I fail to perceive how Collongues' and Joire's experiments (even in case they are ratified by those of Blondlot and Charpentier) would help us to advance towards knowledge of the soul and how they could satisfy the "sublime hope" of a survival!

¹*Echo du Merveilleux*, 1907, p. 309.

CHAPTER IX

THE INDEPENDENCE OF OCCULTISM WITH REGARD TO PHILOSOPHICAL AND RELIGIOUS DOCTRINES

73. *Knowledge of occult phenomena can help neither the triumph nor the ruin of any philosophical or religious doctrine.*
74. *Opinions of people who try to mix Occultism with philosophy or religion.*
75. *Refutation of this doctrine.*
 - a. Authors who try to mix Occultism with philosophy or religion come to contradictory conclusions disproving themselves.
 - b. One could give to Occultism a philosophical strength only by accepting the spiritualistic doctrine, which, as we have seen, is not proved.
 - c. Occultism is a prescientific chapter open to all, whatever their philosophical or religious creed may be.

73. THE ARGUMENT TO BE ELUCIDATED.

Previous to entering upon a critical survey of occult facts I should make here an important remark. My opinion is that one should give up, once for all, a hope upon which many most honorable authors have set their heart. This hope, which I deem to be an illusion, is the opinion that it is possible to apply knowledge of occult phenomena to the apologetics and success, or to the confutation and downfall of any philosophical or religious doctrine whatever.

I lay down as a principle that no philosophical or religious doctrine is in any way concerned in the success or failure of such researches. The future of none of them is connected with the manner in which will be settled the conclusions of to-day as well as those of to-morrow after the inquest I undertake here.¹

¹ No philosophical or religious doctrine is questioned here, except the

This is very fortunate for those doctrines, for facts so utterly controvertible and debated could afford only very frail arguments and bases for philosophy or religion.¹

74. OPINIONS AGAINST THIS THESIS.

Many authors have thought that "the soul theory" has a sort of peculiar experimental proof in spiritualism. The book of Léon Denis on "Le Spiritisme et la Médiurnité," bears as under-title, "Traité de Spiritualisme expérimental." He says: "Spiritualism has already exerted a prominent influence over the minds of our contemporaries. Owing to it, thoughts have been directed toward the beyond. It has aroused the feeling of immortality within men of our epoch whose conscience had become misty or was asleep. It has made more lively, more real, and more tangible the belief in a survival of the departed. It has brought forth certitudes where we had only hopes and presumptions. By uniting reason with feeling, spiritualism becomes the scientific religion of the future. In fact, disembodied and incarnated spirits are often walking together, side by side, through joy and sorrow, amidst successes and failures. The affection of our beloved is surrounding us; it is a comfort and a help to us. We are fearing death no longer. Any belief should rely upon facts. We should ask of the manifestations, of souls that are made free from the flesh, and not of obscure and obsolete texts, the secret of principles presiding over

gross spiritualistic superstition, which is obviously contrary to facts" (Jules Bois, "Le Miracle Moderne," 3rd ed., 1907, p. III).

¹"Spiritualistic manifestations are not the matter here," says Fogazzaro; "I do not need a new doctrine to believe in a survival of souls, and in a possibility of communication with those that have left off mortal life: therefore I do not evoke or perceive ghosts; I do not listen to the whisperings of the invisible; neither do I hear them. I have no mysterious contacts with fantasms. What I have is much better; it is real life and power." Citation by Robert Léger, "Les Idées d'Antonio Fogazzaro," *Revue des Deux Mondes*, Feb. 15, 1907, p. 834.

future life and the improvement of spirits. Thus, owing to the revelations of spirits, the great sun of kindness, harmony and truth is shining over the world."¹

"What is spiritualism?" asks Delanne.² Spiritualism, in the opinion of believers, is an experimental proof of the existence of the soul and of its immortality. Numerous and varying are the manifestations by which the soul proves its survival after death. The narrow positivism of our time was believing that it had banished the soul of spiritualists to the kingdom of fancy by declining to deal with all that which is not self-evident; and now its followers are bound to prove that the soul theory is a fact. The experiments made by mediums "are to become the basis of a demonstration of survival."

Authors have been induced in this manner to confuse both words, "spiritualism" and "soul theory," as being nearly synonymous.³ Marcel Mangin⁴ says: "It is obviously easy for an adept of the 'soul theory' to become a spirit believer," and Gaston Méry⁵ has gone so far as to speak of "experimental catholicism."⁶ In this respect the last chapter (Conclusion) of Myers' book is quite remarkable.

¹Léon Denis, *loc. cit.*, pp. 128 et seq.

²Gabriel Delanne, *loc. cit.*, pp. 1 and seq., and "Conférence sur le monde invisible," delivered at the Society for Psychical Researches, in Marseilles, 1903, p. 26.

³The book already quoted by Encausse, is entitled: "L'Occultisme et le Spiritualisme."

⁴Marcel Mangin, "Compte Rendu analytique du livre de Myers sur la personnalité humaine," *Annales des Sciences Psychiques*, 1904, p. 39.

⁵Gaston Méry, "Une protestation des spirites," *L'Echo du Merveilleux*, 1906, p. 21: "Among the many theories framed in order to explain those facts, the theory that is establishing the greatest number of them, and consequently the best for the present, is the catholic theory."

⁶F. W. H. Myers, "La personnalité humaine. Sa survivance. Ses manifestations supranormales." Traduction et adaptation par le Dr. S. Jankelevitch, bibliothèque de philosophie contemporaine, 1905, p. 401.

He writes: "I pretend that there is a method for reaching knowledge of divine things with the same certitude, the same quiet safety, as that to which we are indebted for our advance in the knowledge of terrestrial things. The authority of religions and churches will be thus replaced by the authority of observation and experience. It is through our souls that we are connected with our fellow men. The body is dividing us, even when it appears to unite us."

He then delineates the "provisional sketch of a religious synthesis that affords sound confirmation of Christian revelation. All the demonstrable data included in Jesus Christ's message are demonstrated here: all his promises of undemonstrable things are repeated. Owing to new data that we possess, all reasonable men will believe, before a century has elapsed, in the resurrection of Christ, whilst without those data nobody would any more believe in it in a century. Our epoch of science gets more and more convinced of this truth, that the relations between the material world and the spiritual may not exclusively assume an emotional and moral bearing. As regards especially this main assertion, the life of the soul expressing itself after death, it is obvious that it should less and less prevail from tradition only, and should seek for its confirmation in modern experimentation and investigations. Had the results of psychical researches been merely negative, would the data (I do not say the emotion) of Christianity have not received an irreparable blow? In my personal opinion, our researches have afforded us results quite different and absolutely positive. Thus the main assertion of Christianity is verified in a striking manner. The vague and defective assertion of revelation and resurrection is nowadays ratified by new discoveries and revelations. The revelations included in messages originating in disembodied spirits establish in a direct manner what philosophy had only been able

to surmise—the existence of a spiritual world and the influence it is exerting over us.”

All those facts, observed and interpreted, are definitely leading Myers to corroborate in part the foundations of the Christian religion, and on the other hand to ratify in the future “the Buddhist conception of an infinite spiritual evolution to which the whole cosmos is liable. This process, occurring in a different way to each soul particularly, is itself continuous and cosmical, all life being derived from the original force so as to become the supreme joy.”¹

Thus, one may understand the meaning of this remark of Bourdeau:² “The originality of Myers consists in the renovation of old animism, which he tries to place upon a scientific set of theories.”

Ernest Bozzano³ contrives to show “how the very fact of the existence of metaphysical phenomena, considered as related to the principle of evolution—the spiritualistic hypothesis being left aside—is sufficient to establish the survival of the spirit after it has come from the body.” And he concludes: “The pick of the intelligences that have surveyed, or are still investigating metapsychical phenomena, are agreeing with Myers regarding the fact that, owing to the proof of the existence of supernormal faculties on the subconscious plan of the Ego, the question of survival should be considered as solved in the affirmative.” He cites: Aristotle, Alexandre Aksakoff, W. F. Barrett, Hyslop, Thomas Jay Hudson, Charles de Prel, Brofferio, Frank Podmore, etc.

¹“Prof. Flournoy has been able to say that the religious theories expressed by Mr. Myers, compared with those that had prevailed till now among spirit believers, are like a modern palace amidst the huts of savages.” (*Annales des Sciences Psychiques*, 1904, p. 322, note.)

²J. Bourdeau, *Journal des Débats*, Aug. 18, 1906.

³Ernest Bozzano, “Mrs. Piper et la conscience subliminale,” *Annales des Sciences Psychiques*, 1906, p. 529.

The *Luce e Ombra*¹ says: "If Cesare Lombroso was able to tell us a few days ago in the office of our editor, that he henceforth believed in the survival of a part at least of the human personality, thanks are due to the admirable tenaciousness of Ercole Chiaia, who was so clever as to take advantage of the scientist's virtuous conscience, and lead him that way, owing, so to speak, to the obviousness of the facts."

Maxwell writes (p. 10): "Eminent intelligences, such as those of Myers, Sidgwick and Gurney, to speak only of the dead, have entered into investigations of occult phenomena with the desire to find the proof of a future life. Myers died after having found, or believed he had found, the proof he had longed for."

I may also compare a sentence by O. Courier² with the doctrine of Myers: "When the arches of our magnificent cathedrals shall resound with the admirable teachings of spiritualism, scientific morals will check base living and restore the reign of fraternity, for this reign, founded by Christ, has been pulled down by those who pretend to be his followers."

Edouard Drumont writes, in the preface to a book quoted already, by Dupouy: "I can imagine the feelings of a Voltairian of 1825, provided he was intelligent and plaindealing, if he could read the work of our friend, Dr. Dupouy. He would be able to find in it, that hardly a century after the apotheosis of the unbeliever who played the part of the goddess of reason, science is everywhere testifying to the existence of the supernatural, that it is more and more coming to conclusions unutterably spiritualistic, and is day by day, establishing the subordination of matter to mind. What is

¹Le professeur Lombroso et la Survivance de l'Ame," *Annales des Sciences Psychiques*, 1905, p. 646.

²O. Courier, "La Vie Nouvelle," 1906, p. 256.

strange is to see science using the famous method of experimentation formerly so much spoken of, and testifying to the reality of facts that were in the beginning of the nineteenth century deemed as illusions and deceits. Scientists, who by different ways are trying to widen the horizon of their contemporaries and to bring back their fellow men to the notion of the supernatural, to preoccupations of the beyond, are doing their country an immediate service by forcing it out of materialism, which is a sort of hemiplegia, a paralysis of one whole side of the individual." Likewise, Monsignor Elie Méric, in his prefaces to Surbled's¹ books, and to those of the Rev. Pie Michel Rolfi,² expresses the opinion that, owing to these researches materialism has been vanquished.³ "Writers who are most adverse to the Christian religion or to any religion whatever, and the most independent and sincere in their experimental investigations, are bound to acknowledge nowadays that, even to explain vital activity, psychochemical forces are not sufficient. And we see the soul in the shape of the human body peeping in. It is actually a great comfort to see that the experimental and natural sciences, which had been exceedingly boasted of by men of our time, now ratify the presentiments of conscience and the teaching of philosophy. It is a great joy for the mind to see, at last, metaphysics, philosophy and sciences combined in order to upset materialism and to testify as you so perfectly do to the existence of the soul and to its immortality."

¹Surbled, book quoted on "Le Spiritualisme et le Spiritisme," 1898.

²R. P. Pie Michel Rolfi, O.F.M., "La Magie Moderne ou l'Hypnotisme de nos jours." Traduction (sur la 3rd édition) par l'abbé H. Dorangeon. Introduction de Mgr. Méric, 1902.

³"Materialism has given way," is the conclusion of Dupouy in his book already quoted, in front of which he has inscribed this sentence of Richet, "The supernatural becomes natural, as soon as our ignorance of the cause is cleared up."

The same author relates the case of the female seer of the Place Saint Georges and adds: "Therefore, we are observing a spiritualistic phenomenon, and we detect here experimental proof of the teaching of theology concerning spirits, their nature, their lightness, their acute intelligence, their wonderful evolutions, their presence in space, their irruption into certain individuals whose responsibility they momentarily impound; but I do not admit that materialists and scientists take possession of cases of this kind, which they pretend to compare with phenomena of physics or chemistry, or connect with the principles presiding over the material world, either organic or inorganic. Neither do I admit that they speak here unto us about cathodic rays, hertzian or cerebral waves; they mix together facts which ought to be kept absolutely distinct."

In the Rev. Pie Michel Rolfi's opinion, "the devil, who has always been jealous of men, tries to lead them into error, and in order to succeed, he comes forth and has intercourse with them. Such is the basis of spiritualism. There are, indeed, invisible beings who are acting through mediums. These are the evoked spirits whose answers are registered by speaking or turning-tables, or by any other proceeding whatever. Spiritualism, or, in other words, intercourse between men and invisible beings, is a fact and an undeniable one. And here is another fact which is not less irrefutable: those invisible beings are demons and spiritualism is unlawful. God, the angels, the spirits of the dead, are obviously not connected at all with speaking-tables; therefore spiritualism is dealing only with demons. The proof is evident. The devil makes tables speak or turn. Consequently he who witnesses such things is having intercourse with the devil and ipso facto doing him honor."

The author recalls here the decree issued on July 28, 1847, by the Holy Congregation of the Inquisition, in which it was

stated that "it is not allowed to apply merely physical principles or powers to things and results merely supernatural in order to cause their physical manifestation; for it would be a very illicit fraud on the verge of heresy." The author adds: "Is this not precisely the case with speaking-tables and analogous witchcrafts?" He cites a sentence passed on a believer who positively kept from any agreement with the evil one, "but evoked the spirits of the dead, by first making a prayer unto the prince of the heavenly militia in order to get permission to have intercourse with such or such spirit. The answers were absolutely conformable to the belief and teaching of the Church regarding future life. Usually those answers disclosed the condition in which the soul of such or such deceased person was and the need it had of support; also its complaints as to the ingratitude of relatives, etc." The final conclusion of the book is: "In reference to telepathical phenomena, presence of spirits, visions of souls, etc., here follows that which is ordinarily happening. *First*, should the presence of angelical spirits, or of souls not evoked by us be really verified, those are 'good' spirits. *Second*, in case we have evoked them in any manner whatever, we may be sure that they are demons."¹

Here follow the conclusions of the book of Dr. Lapponi already referred to: "Spiritualism is the manifestation of

¹On March 1, 1908, a canon of Brignoles wrote me, after having read the first edition of this book: "I hear that you are a believer, a sincere Christian, and a churchgoer, and I am astounded; hypnosis is nothing but the momentary occupation of a human being by an outward spiritual power. Magnetism, hypnosis, somnambulism, spiritism and all matters connected with them, are but various names and different modes of only one thing, as old as mankind, whose origin it has stained: it is not souls of the dead that move the table or the pen of the spirit believer; neither do they speak through the somnambulist and the hypnotized, or request men to have intercourse with them. They are merely demons who usurp their speech, handwriting, style, secrets, and even their name."

activities of a supernatural order. The spiritualism of to-day is identical with the magic and necromancy of the Greeks, the Romans, and of the Middle Ages. . . . Spiritualism is always dangerous, hurtful, and blamable. It should be condemned, and forbidden in the severest way, without exception, in all its degrees, in all its forms, and in all its manifestations!"

This recalls the condemnation of hypnotism by the Bishop of Madrid, Monsignor Sancha Hervas, in his pastoral letter of March 19, 1888.¹ Outside Catholicism,² the rabbi, Dante A. Lattes, in an article "Al di là" (beyond) in the *Corriere Israelitico* of Trieste, expresses the opinion that "Spiritualism, which has become a wide and serious experimental doctrine, nearly discloses unto us the mysteries of the beyond, by altering into an exact covenant that which was formerly only faith. Its phenomena and hypothesis are a help to religious feelings and afford a great profit and a good deal of light to the facts of (Jewish) history, and to the usages and creeds of the (Jewish) religion."

Reversely, Mr. Godfrey Raupert, who is a Protestant, declared in the *Daily Mail* that the results of spiritualism are deplorable from a mental, moral and physical point of view. He wondered at the silence kept by leading clergymen of the Church of England regarding the danger, which, in his opinion, was threatening faith. He was justifying "orthodox religions for their condemnation of the evocation of spirits, as a transgression of secrets the Almighty has thought convenient to conceal from man." The Ven. Archdeacon Colley answered that: "Spiritualism is coming to

¹As regards hypnotism, I may observe that the Rev. Pie Michel Rolfi says: "We could not, and would not, condemn the opinion of Catholics who pretend to have the right sometimes to use hypnotism. In fact, the Holy See has not condemned hypnotism, but only its abuse."

²"Les Ministres des Cultes et le Spiritisme," *Annales des Sciences Psychiques*, 1906, p. 118.

millions of Christians who are not satisfied with their religion, as a real herald of God, in order to save mankind from the Sadducean materialism which perceives nothing beyond the grave. Spiritualism is a healing to those who lack faith, especially because it affords scientific proof that life is continued beyond the grave." The Ven. Colley goes on to say that, in his opinion, "Spiritualism is the crown of all that is most precious in each religion."

75. DISPROOF OF OPINIONS WHOSE TENDENCY IS TO MIX OCCULTISM WITH ANY PHILOSOPHICAL OR RELIGIOUS DOCTRINE.

a. From the brief outline given above, I believe I may first infer that authors wishing to mix Occultism with a religious or a philosophical doctrine, are led to contrary and inconsistent opinions that are refuting each other. Some of them pretend to find in Occultism an experimental demonstration of Catholicism (Gaston Méry), or a proof without which the Christian religion would be quite deficient (Myers). Some others view it as a transformation into science of the Jewish faith (Dante A. Lattes), while others deem it a great danger to religion (Godfrey Raupert), and others a new creed for those who are not satisfied with their own faith (Colley). Lapponi considers it the almost constant working of the devil. Rolfi makes a difference between cases of angels and those of demons. Drumont expresses the opinion that, owing to it, the supernatural is established by science, and Monsignor Elie Méric¹ remarks in it evidence of the lightness and acute intelligence of spirits. Myers infers from it a buddhistic conception of the cosmos, and Courier proclaims the coming accession of spiritualism

¹Drumont and Monsignor Elie Méric seem to arrive at very analogous conclusions in setting forth books whose tendencies are quite different, if not contrary (the works of Dupouy and Rolfi).

to our magnificent cathedrals, instead of Catholicism, which has become obsolete. I need not insist on the fact that such contradictory conclusions, inferred from the same source, are refuting each other, and that in case they leave the facts untouched, they annihilate all religious deductions. A religion leaning upon such foundations would be rather weak, and none of them has profit in claiming bases so valueless. A religion could only be weakened or imperiled by becoming connected with Occultism.

Surbled¹ has perfectly understood this, and has rightly blamed "the attitude of some people who do not realize the true meaning of spiritualism, but perceive there, if not a way towards Faith, at least new and precious evidence in favor of the supernatural." He adds: "We declare it plainly, there is no basis for apologetics in it; on the contrary, we deem it a dangerous illusion as well as an error of tactics."

At the same time those researches are not instrumental in fighting religious doctrines. I do not agree with Charles Richet, who writes: "After those investigations the supernatural has become a natural phenomenon." Not at all. As I have said above, the Occult has nothing to do with the supernatural, either to support or upset it. As soon as our ignorance of the cause has been cleared up, the Occult has become scientific; but by definition the supernatural will never enter the dominion of Science. It is impossible to see, as Drumont does, a contradiction between Science to-day surveying Occultism, and philosophical systems which a century ago deemed all supernatural facts deceits and frauds. Religion remains superior to, if not unconcerned in, the hesitations, researches and conclusions of Occultism.

¹Surbled, "Spirites et médiums," p. 5.

b. Contradictions are apparently removed and unity is established when it is asserted that Occultism has vanquished Materialism, and has proclaimed the definitive victory of the soul theory, as well as irrefutable proof of the survival of the soul. Although authors who agree in this assertion are many, and although their value is unquestionable, I do not think they are right. I do not believe either that it is possible to include Occultism in a philosophical theory rather than in a religious doctrine.

In order to view Occultism as a new evidence in favor of the soul theory, one should be bound to make it conjointly liable to the spiritualistic hypothesis. The fears and illusions set by every one of us, according to his own mood, upon Occultism, are all giving way, if, as I am absolutely convinced, there is nothing established and proved in spiritualism in the etymological sense of the word. We must and may discuss the facts upon which this *theory* is leaning; but should those facts be absolutely established, they would not in the least imply the evocation of spirits, nor prove the survival of the human soul and the existence of angels or demons.

Maxwell writes in reference to spirit believers strongly persuaded in their faith: "I am longing for their ready belief, but I cannot absolutely partake of it. Our individuality is growing during a period of time which is infinitely longer than human life. I am sure of it, but I have not derived my faith from spiritualistic séances. My creed is a philosophical one. My opinion is not inferred from spiritualistic messages; those messages have most likely another source than that ascribed to them by Allan Kardec's followers."

The conclusion is as formal with regard to philosophical deductions as it is concerning the religious deductions of Occultism; a philosophical scope might be ascribed to Oc-

cultism only if the spiritistic hypothesis was accepted, but it is, as we have seen, far from being verified.

c. Therefore, in a doctrinal and metaphysical respect, Occultism deserves neither reprobation nor canonization. It remains merely a prescientific chapter in which the facts are waiting for "their scientific naturalization."

To those who feel inclined to follow the Rev. Rolfi or Dr. Laponi in their solemn condemnations, I could not too much recall what has happened to hypnotism; yesterday it was in the realm of occultism; it has now entered that of actual science. One had the right to condemn it yesterday (and this was done). It would not be possible to condemn it to-day, since it has been transferred to the positive field and is now outside metaphysical or religious discussion.

Consequently—and such is the conclusion of this chapter—a criticism of Occultism is not and never will be instrumental in apologetics to anybody¹ and at the same time it is neither a hindrance nor an objection to anyone. It is accessible to all, believers or unbelievers, followers of the soul theory or materialists, since it is by nature neither contradictory nor conformable to any philosophical or religious doctrine whatever.²

B. THE FACTS

76. ONE MUST PROVE THE EXISTENCE OF THE FACTS. CLASSIFICATION AND PLAN OF SURVEY.

We may infer from all that I have previously stated that a criticism of Occultism should not be an outline of more or

¹"Above all, one should not share the illusion of several scientists or journalists, whether they be Catholic, Protestant, or Jew, who have made haste to frame new apologetics according to the data of Occultism, and who would feel readily inclined to confuse the soul theory with spiritualism" (Pierre Castellan, *Nouvelle Revue Théologique*, Feb., 1907, No. 2, p. 110).

²*Cf.* the discussion of this opinion by Dr. A. Goix, "La laïcisation des phénomènes occultes," *Revue du monde invisible*, 1907, p. 257.

less probable theories, but an analysis and a critique of the facts. As has been rightly observed by Charles Richet,¹ by themselves "the facts are never absurd. They are, or they are not. In case they are real, a survey of the phenomena should go before the critique of the theories."

Babinet referred in 1854 to facts "which are not at all to be explained, but on the contrary are wholly to be verified." Many authors acknowledge this to-day, and this is the reason why the works of actual investigators deserve to retain the attention and provoke the judgment of the scientific world. The duty is at first to know whether the facts exist or not, and if they are positively established.

In case—as is true in my opinion, and as I shall try to prove—they are not verified, it would be convenient to say so, in order to specify the problems to be solved, and to make easier and more precise the work of investigators. When the facts shall have been established, all will be done, and it will not be difficult to frame a theory of them; this is quite accessory, and in any case much easier.

Previous to entering upon a survey of these facts,² I must, if not set forth a classification of the occult phenomena, at least point out, in a logical enumeration, the order in which I am going to review them.

All those facts, enumeration of which is given in the table herewith, are obviously liable to a phenomenon of exteriorization of the psychism by new proceedings, under various aspects, in the form of thought (mind reading and mental suggestion) in the form of movement (levitation, movements without contact), or in the form of sensation (raps, materializations, visions, luminous objects). When all

¹Charles Richet, *Annales des Sciences Psychiques*, 1905, p. 33.

²Many of those facts will be found either in the *Echo du Merveilleux* of Gaston Méry, or in the *Annales des Sciences Psychiques* of Dariex. The documentation of this book is mostly borrowed from that collection.

A LIST OF OCCULT PHENOMENA

ACCORDING TO MAXWELL

OCCULT PHENOMENA

OF A MATERIAL OR PHYSICAL ORDER

- 1st. Knockings on furniture, on walls, on floorings, or on experimentalists; raps.
- 2nd. Various noises, except raps.
- 3rd. Movements of objects without contacts sufficient to explain such movements. {
- a. Movements provoked without any contact: télékinésia.
 - b. Movements provoked with contacts not sufficient to explain them: parakinésia.
- 4th. Material.
- 5th. The penetrability of matter into matter.
- 6th. Visual phenomena {
- a. Vision of the odic effluvium.
 - b. Amorphous lights.
 - c. Luminous, or obscure, shapes.
 - d. Materializations.
- 7th. Phenomena leaving permanent vestiges: prints, moldings, drawings.
- 8th. Changes in the weights of persons or objects.
- 9th. Changes in temperature.
- 10th. Puffs of air, usually cold.

OF AN INTELLECTUAL ORDER

- 1st. Typtology: knockings, struck by the leg of a table. {
- a. Enumeration at a loud voice, of the letters of the alphabet, with an interruption caused by a rap.
 - b. Pointing out (owing to a rap) of letters, with a pencil or a stylet, on a written alphabet.
 - c. Index on a spindle, moving, with or without contact, on an alphabet inscribed in a circle.
- 2nd. Grammatology (sentences spelt).
- 3rd. Automatical handwriting: mediate or immediate.
- 4th. Direct handwriting (sudden, without pencil).
- 5th. Incarnations: the subject asleep speaks in the name of the entity which he embodies.
- 6th. Direct voices, issued by vocal organs that do not belong to bystanders.
- 7th. Other automatisms and various hallucinations: crystal, telepathy, télésthésia, clairvoyance, voyance, clairaudience.

those facts shall be scientific their classification will most likely be in this manner. To-day, at the prescientific epoch and when the very existence of those facts is still questioned, I prefer to sort them according to the more or less great portion of the marvelous included in them, and according to the more or less long distance which lies between them and science.

Therefore, I am dividing them into two groups: The first group includes the facts whose demonstration, should this ever become possible, is in any case remote (telepathy, premonitions, material brought from a long distance and materializations). The second head comprises facts whose demonstration is perhaps nearer at hand and ought to be first sought for (mental suggestion and direct thought transference, removals of objects within reach without contact, levitation, raps and clairvoyance).

I thus begin with the survey of the most intricate facts, those which are less probable and the most distant from a scientific demonstration, and I conclude with a survey of the facts more accessible to a scientific investigation—those to which, in my opinion, the actual efforts and the precise experimental researches should be exclusively restricted.

CHAPTER X

FACTS WHOSE DEMONSTRATION, IF POSSIBLE, AP- PEARS VERY FAR AWAY

I. TELEPATHY AND PREMONITIONS.

77. *Definitions.*

78. *Account of the facts.*

a. Telepathy and télésthésia.

b. Premonitions and forebodings (divination and prophecy).

c. Telepathical influence of the dead and of things; retrocognitive telepathy (psychometry).

79. *Discussion.*

a. Instances of telepathy and hallucination. Their scientific existence not proven.

b. No fact proves divination or prophecy.

c. Many telepathical facts are "disoccultated" by our actual knowledge respecting the lower psychism.

d. Coincidences explain the others.

e. How should experimentation be established to become effective.

II. MATERIAL FROM A LONG DISTANCE.

80. *Instances.*

a. Anna Rothe and Henry Melzer.

b. Mac Nab.

c. Charles Bailey.

81. *Discussion.*

a. Conscious deceits.

b. Unconscious deceits.

III. MATERIALIZATIONS.

82. *How the question stands.*

83. *Instances.*

a. Luminous phenomena.

b. Fantasms.

c. Photographs and moldings.

84. *Discussion.*

a. Hallucination.

b. Conscious or unconscious deceits.

a. Photographs and impressions.

β. Luminous phenomena.

γ. Fantasms.

1. Tricks.

2. Spirit-grabbers.

3. Experiments at the Villa Carmen.

4. Miller's recent experiments.

I. TELEPATHY AND PREMONITIONS

77. DEFINITIONS.

Telepathy is a sensation felt by a subject A, when a momentous event (illness, accident, death) is occurring at a great distance to a subject B, who is connected actually with A, by none of the means of psychical communication yet known. Thus, during the war of 1870, the wife of a soldier saw her husband fall (he was at a distance of about 520 miles), his trousers being stained with blood, and, in fact, on the following day she heard that he had both legs taken away by a cannon ball. This is telepathy. This word was employed in 1882 by Myers, who has defined it as follows: "The transference of impressions of any kind whatever between one brain and another apart from any sensory mode already known."¹

The word *télésthésia*² would perhaps be better, at least in cases when there is only a sensation, the word telepathy would then be restricted to cases which are more frequent, when A is really feeling an emotion.

"Telepathy," writes Maxwell (p. 24), "if the subject

¹Vide Ernest Bozzano, "Mrs. Piper et la Conscience subliminale, et M. J. Arthur Hill," "Qu'est-ce que la télépathie?" *Annales des Sciences Psychiques*, 1906, pp. 527 and 618. See also Maxwell, "Psychologie et métapsychique," *Année psychologique*, t. XIII, 1907, p. 100.

²"Télépsychie" has also been used. Boirac combines under this term, "all phenomena in which, in one way or another, is made manifest, under one aspect or another, but always apart from any verbal suggestion, the influence exerted by one human being over another one, at a more or less long distance."

seems to be influenced by a remote agent, 'télésthésia,' if he seems to be feeling impressions at a distance." Marcel Mangin¹ restricts "telepathy," "whose half means rather suffering than feeling, to spontaneous and involuntary transferences of emotions or sufferings." In his opinion télésthésia is synonymous with lucidness.

The same author calls "telepathy" retarded influence remaining unconscious and latent, which is aroused a little while after the impression. Thus, the impression may be aroused in A only after the death of B. Whatever may be the value of this explanation, the subject A may be influenced by a corpse, or by an object lost, which the sensation he is feeling enables him to detect. A may also get revealing impressions from a subject B, dead long since; this is psychometry or recognitive telepathy. Reversely, if the sensation felt by A is preceding and somewhat foretelling of the fact to which it is related, this becomes a premonition or a presentiment.

In any case the subject B (exerting the influence) is not intervening in the growth of the sensation felt by A (influenced). He is even unaware of the fact. This is that which with distance makes differences between telepathy, thought transference and mental suggestion, which I shall examine further.²

If I speak sometimes in this chapter about divination or prophecy, it will be solely to cite facts published under those names; but in my opinion they do not deserve such a qualification. For, as I have no intention whatever to deal with the supernatural (see above), I cannot properly speak about

¹Marcel Mangin, "Lettre à M. le Dr. Ch. Richet sur la Télépathie," *Annales des Sciences Psychiques*, 1905, p. 354.

²Chapter XI. I. It is only at this moment that I am to survey the telepathy called experimental in which both subjects A and B are active.

real diviners and prophets. Science is examining the principles of the phenomena. The words "divination" and "prophecy," as well as the word "miracle," can apply to exceptions only, and to facts beyond the ordinary principles; consequently those facts are not conjointly objects of science.

Flournoy¹ has reproached me with having placed divination not only outside actual science (what he thinks to be proven), but also outside science at large, and consequently outside the science of the future. I believe he is contesting with words only.

When dealing with divination, one is dealing with an anti-scientific, or at least extrascientific process. In science it is possible to foresee or to have presentiments, i. e. to point out things of the future by rationally leaning (either consciously or unconsciously) upon things known, either past or present; but this is no divination or prophecy. He who is foreseeing or foretelling is arguing polygonally at least. Therefore, when a divination becomes scientific, it ceases to be a divination and becomes a presumption or a rational prevision. This is the reason why I believe that divination is without the range of science, even of the future, and consequently beyond the subject-matter of this book.

Reversely, as regards telepathy, despite the strangeness of some phenomena, there is nothing, *a priori*, contradictory to a scientific demonstration more or less near at hand. Alfred Fouillée² said in 1891: "It is possible that there may be, or rather it is impossible that there is not, through space, modes of communication unknown to us as yet. We may build up telegraphs without the usual wires."

Goethe writes: "Owing to its very presence, a soul may

¹Flournoy, *Archives de Psychologie*, 1903, p. 311.

²"Le physique et le mental à propos de l'hypnotisme," *Revue des Deux Mondes*, May 15, 1891; "La psychologie des idées forces," 1893, t. II,

also exert a strong influence over another soul," and Tennyson remarks that light is spread by vibrations from star to star. Why would it not be possible for the soul to send also to another soul a more subtle particle of itself.¹

Therefore, telepathy is possible; it is not antiscientific. If it is a part, we need not ascribe it to reincarnated spirits, or to the supernatural so as to explain it. The question is only to know if it really exists.

78. ACCOUNT OF THE FACTS.

a. Telepathy and Télésthésia.

The facts of telepathy that have been recorded are exceedingly numerous. Many of them will be found in special periodicals, in the book of Dupouy,² and chiefly in the work of Gurney, Myers and Podmore.³ Charles Richet writes in the preface to a translation of this latter book: "I have not handled this work without a sneering incredulity, but as I had no fetishism for the science called 'official,' I have gradually come to the conclusion that most of those reports were true. The long and patient efforts of Gurney, Myers and Podmore have been to gather evidence, to investigate the alleged facts and to verify dates, hours and places by official documents. The authors have perfectly given the limitation of the aim of their book, the survey of any kind of phenomena that may afford us a reason to suppose that the mind of one man had been acting over the mind of another without having written or spoken a word or made a sign."

p. 394; and "Télépathie et Télégraphie sans fil," *Bulletin de l'Institut général psychologique*, 1904, t. IV, p. 509.

¹Citations by Jules Bois, pp. 6 and 7.

²Dupouy, *loc. cit.*, p. 140.

³Gurney, Myers and Podmore, "The Phantasms of the Living." See also Jules Bois, "Le Miracle Moderne. La télépathie," *Le Figaro*, May 11, 1907.

Here follows a remarkable instance of telepathy related by Paul Bourget.¹ "In 188-, I was in Italy, I had a dream that was real to an intolerable extent, in which I saw one of my colleagues of the press, Léon Chapron, on his death-bed. I was afterwards witnessing all the circumstances following his death, namely, a debate dealing with replacing him as dramatic critic in the office of the editor of a newspaper. Such was the influence of this dream that I could not help coming back to Paris, where I had a talk about it with Maupassant, who asked me: 'But you knew he was ill?' Now, I had never heard of his illness. Chapron died eight days after this conversation." During his journey, Bourget received a note from Chapron without any indication or hint that he was ill. Such facts are so frequent that it has recently been possible to assert² that "we cannot deny to-day the power of vision at a distance, as well as presentiments, so great is the number of similar facts recorded."

Vastness of distance to overcome is not a hindrance to experiments. In order to quote a typical example, Myers says: "On January 12, A, being in India, saw at 8 o'clock P. M. the fantasm or shape of his brother B, who was in England, and whom he had no reason to believe unwell or in danger. Now, B died precisely on January 12, a few hours before, a fact of which A could have no knowledge."

The *Light of Truth* has published a story, recorded by Prof. James Hyslop, then of Columbia University, of a message transferred (through the channel of Mrs. Eleanora Piper) from North America to England. "This message was forwarded in English, and consisted of four words, but the medium who got it in England wrote it out in Latin.

¹Paul Bourget, *Annales des Sciences Psychiques*, 1895, p. 74.

²Xavier Pelletier, "Télégraphie humaine," *Echo du Merveilleux*, 1906, p. 274.

Prof. Hyslop is absolutely convinced that the message was transferred by means of a spirit. As far as we can imagine, the conditions of space are not to be viewed in the spirit world; one thousand miles are not more than one inch to them.¹

b. Premonitions and Forebodings (Divination and Prophecy).

Many cases of premonitory, divining, or prophetic telepathy are recorded in which the event is "felt" previous to its occurrence. The *Annales des Sciences Psychiques* have frequently dealt with Mlle. Couesdon.² "After a short conversation," she says, "I feel that my eyes are going to close, the angel is about to speak with you." And indeed, her eyes do close, the stress of her voice is changed, it becomes deeper, and a new psychical personality, whose name is Gabriel the Angel, is talking to you in a language involving the frequent recurrence of words whose last syllable is *é*, which tend to produce false rhymes. Her messages are of a general order, usually facts are not considered apart or made precise, so that this vague language may lead either to an excessive skepticism or to an extreme credence, according to the peculiar mood of the hearer. It is obvious that by speaking in a vague manner one may say things in which every one will be somehow concerned. Our first visit to Mlle. Couesdon enabled us to determine as probable the hypothesis of lucidness; our second visit has been less favorable to this hypothesis."

¹"Transmission supranormale d'un message d'Amérique en Europe," *Annales des Sciences Psychiques*, 1904, p. 386.

²Xavier Dariex, "Le cas de Mlle. Couesdon"; "A propos de Mlle. Couesdon"; and Le Menant des Chesnais, "Le cas de Mlle. Couesdon," *Annales des Sciences Psychiques*, 1896, pp. 124, 191, 280 and 300. See also *L'Echo du Merveilleux*, passim, and chiefly, R. L. B., "Les Prédications de Mlle. Couesdon" (1904, p. 454), and Timothée, "Prophétie de Mlle. Couesdon sur la Séparation de l'Eglise et de l'Etat" (1906, p. 129).

Le Menant des Chesnais has scrutinized in a very witty manner the growth of Mlle. Couesdon's mediumship. In 1884 or 1885, Mme. Orsat had a niece, Eglantine, who, suffering from consumption, had seen an angel sitting on the edge of her bed and who told her he was waiting for her in the next world. Eglantine promised before her death to watch over the safety of her aunt. After the death of her niece, Mme. Orsat was led to spiritualistic séances; she proved to be a perfect medium, and soon pretended to get inspiration from a tutelary angel (or from Eglantine's spirit), and later—this was made precise—from Gabriel the angel. For eleven years Mme. Orsat permitted her "customers" to take advantage of Gabriel's inspirations. M. Couesdon was among the applicants. There were around Mme. Orsat some of her friends who had also their visions, while others took interest in table-turning or spiritualism. Mlle. Couesdon was led into this milieu by her parents, and there she was trained, undergoing autosuggestion during three years. Mme. Couesdon wished her daughter to resemble Mme. Orsat. In August, 1894, at Mme. Orsat's house Mlle. Couesdon had a fit of somnambulism, after which she hoped that Eglantine would take possession of her. Mme. Orsat experienced then some failures in her predictions, and set out for Switzerland (August, 1895). Two days later Mlle. Couesdon had, at her father's home, her first important incarnation of Gabriel the angel. She was fast gathering around her Mme. Orsat's "customers," whose number went on increasing. Amidst the enthusiasm and joy of her father and mother she gradually imitated Mme. Orsat's experiments."

In the number for April 1, 1906, of the *Echo du Merveilleux*, there is a prophecy of Mlle. Couesdon (dated Nov. 5, 1896), concerning the separation between Church and State, together with a prophecy of Nostradamus (1566) in refer-

ence to the Courrières disaster. In the number for March 1 of the same periodical Mme. Maurecy relates a visit paid by her to two female seers who had, both of them, a vision of a probable war. One of them declared that we were to be victorious, and the other made a contradictory assertion. "What is more strange," remarks Baron de Vovaye (March 15) "is that such a contradiction, apparently irreconcilable, may be perfectly explained by those who have investigated prophecies." Jules Claretie recalls in the *Temps* for Aug. 24, 1906, that "the famous Comte de Boulainvilliers and an Italian named Colonna, who was well known in Paris, had presaged to Voltaire that he was unmistakably to die at the age of 32. In a paragraph already quoted, Xavier Pelletier reminds us of "the strange clairvoyance which enabled a lady residing in London to foretell several months previous to the event that King Alexander and Queen Draga were on the verge of death.¹

Paul Bourget has reported in *Outre-Mer*,² two séances with Mrs. P—— (Piper), of Boston: "The window-shutters were closed, the lights were put out except a candle set under the table; she loosed her hair so as to be more at ease, put on a petticoat bodice. Then she seized the hand of one of us. A few minutes of silence and waiting elapsed; then she began to moan and moan; she twisted her fingers which escaped from the clasping and rambled through her hair;

¹Charles Richet relates ("Notes sur un cas particulier de lucidité," *Annales des Sciences Psychiques*, 1905, p. 161) that on June 10, 1903, between 10.45 and 11 P.M., a message reading as follows was received: "Banca, death awaits family." On the following day, news was received of the attempt upon the life of King "Alexander and his consort Draga. Later, it was disclosed that Draga's father, who had died a few months before, was called Panta or Panza. . . . Were there not great presumptions that, this very night at the same hour, death was awaiting a family whose name was analogous to Banca, at least as much as to Panta?"

²Paul Bourget, "Outre-Mer," t. II, p. 176 (citat. *Annales des Sciences Psychiques*, 1895, p. 65).

sighs were emitted, heavy and prolonged, sighs apparently originating in the inmost of her being; there was more and more a noticeable bending of the head that was drooping, and we could perceive distortions of all her chest, as if she was struggling with an intruder; then a pause took place. She was asleep. Her open hands were stretched out so as to feel about the face, shoulders and arms of the person opposite her. Next to this she began to speak with a voice that was no longer her own voice, and with an Irish accent. Her real Ego had disappeared and been replaced by another one. She was no longer Mrs. P., whose abode is near Boston, but a certain French physician, who died at Lyons" (Dr. Phinuit). "A strange man, this doctor," said some one who had been present at several séances of this American pythoness, "you know him, he knows you. He is obliging to an excessive extent, always at your disposal. He is a hanger-on who appears as apologizing for living at the expense of others, and somewhat fond of hoaxing."

"I never knew," adds Bourget, "if the friend who spoke in this way was in earnest or if he made fun. I believe that the American who took an interest in these phenomena of clairvoyance, does not know it either. When she awoke from her sleep she took my companion's arm and mine in a tragical gesture. It was obvious that for a few seconds she failed to recognize us. Then she smiled faintly. The seer was replaced by the New England lady, who offered us some tea. Her voice was sweet again. She seemed to have forgotten, or perhaps she had in fact forgotten, the queer doctor with the Irish accent who dwells in a remote country."¹

¹Mrs. Piper's prophecies will be found in R. Hodgson's publications ("Proceedings of the Society for Psychological Research," t. VIII and XIII). See also the work, quoted, of Ernest Bozzano (*Annales des Sciences Psychiques*, 1906, p. 537).

Maxwell (*loc. cit.*, p. 181) has recorded several facts of premonition with the crystal ball; I shall discuss some of them farther on. Mme. de Thèbes issues every year in December an almanac which contains prophecies for the following year.¹

Persons capable of succeeding in such experiments and to forecast the future are so many, that a Congress of Prophets was announced by newspapers to be held in London in May 1906 at Exeter Hall, and about the same time a "trust of witches" was to meet at Molfetta in the province of Bari. It was resolved by the majority of the Congress of Prophets that "the world will come to an end on May 3, 1929, while the minority, a little less pessimistic, believed it would be on April 9, 1931.

"In seven or eight years Europe will be divided into ten confederate kingdoms. But those ten kingdoms will be wrong when welcoming the succession of another Christ who shall bear the predestinated name of Napoleon. He shall come into the world as King of Syria, and shall do France the honor of a first visit. He will subdue her and then extend his dominion over the ten other kingdoms. But soon this Napoleon will expect to be worshipt like God; hence the establishment of a new religion."²

As to the "trust of witches," the word has been used by Claretie, I believe, in the *Temps*. The trust came to an end before courts of justice, which had to register 134 swindlings and made a museum of witchcraft with all the objects found—playing cards, lemons crowned with pins, black ribbons, barrels of tar, powder, bottles of alcohol, plants of every description, hair, nails of men and animals, and a good many other mysterious utensils.³

¹*Vide* namely, *L'Echo du Merveilleux*, 1906, p. 199.

²*Echo du Merveilleux*, 1906, p. 199.

³*Annales des Sciences Psychiques*, 1906, p. 259.

c. *Telepathical Influence of the Dead and of Things; Retrocognitive Telepathy (Psychometry).*

In all instances of properly so-called telepathy which I have just referred to, the medium is influenced by a living subject. This requirement does not appear indispensable, and some mediums have to be used in order to detect corpses. It seems that a medium has recently helped to find the body of Dr. Pétersen at the bottom of a precipice in Savoy.² On October 5, 1904, the doctor left Aix-les-Bains for an outing and never came back. On or about October 20 searches were started at the Mont du Chat, at the Revard, and in the Lake of Bourget. On October 26 an anonymous letter was sent to the police superintendent. It stated the finding of the corpse of "the doctor in a perpendicular precipice under a hollow of the Revard, near a house used during bad weather as a shelter for cattle."

This letter was written by Mme. Vuagniaux, a strongly-convinced believer, who had thus related to the justice of the peace the contents of a mediumistic message received on the same day through knockings of the table "without any question on the part of those ladies." There were three messages. The first researches made by the gendarmerie, according to indications, gave no results whatever. In May the body was accidentally found by a farmer of Mouxy in a place that almost agreed with the indications of the message which, however, was written in rather vague language. The theory thought by Anastay the most probable is telepathy exerted previous to death, persisting and remaining latent after it, and finally, later on, active.

At the moment when I was engaged in writing an article for the *Revue des Deux Mondes* (Aug., 1906), much attention

²"Le cas de disparition du docteur Pétersen," *Bulletin de la Société d'Etudes Psychiques de Marseille (Annales des Sciences Psychiques, 1906, p. 310).*

was given to researches made in order to discover the rector of Châtenay. A police magistrate, several gendarmes, a Hindoo spirit believer, Devah, and his female necromancers, the magicians Ramana, Pickmann and Carlos, were cooperating in the attempts made. During the workings of prophets called "inquiry diviners" by Emile Faguet, the rector was in Belgium preparing for the publication of his "Mémoires," and *le Cri de Paris* said (Aug. 26, 1906):

Devah, Pickmann and Ramana
Are three famous diviners:
Every one of them, in his turn, searched
The fields, and found out nothing but . . . credulous people.¹

The same mediumistic mode of action has been used in order to find lost property. Some professional diviners derive large incomes from this source.

Instances of still stranger facts have been recorded. The medium may be influenced by a subject who died some time ago, even years ago. This is psychometry. The medium may reconstitute in this way a person who long since disappeared, provided he touches and handles an object used by this person during his life. This constitutes a whole chapter of mediumship. The person needs not be dead in order to provoke these phenomena of "psychometrical voyance." Occultists declare that impressions and images may be registered by objects which had witnessed them, to such a degree that, with a jewel for instance in the hand, a sensitive person may view scenes of the past in which the owner of the jewel took a part.²

¹Gaston Méry is right when he observes, "One should not say that the marvelous is a failure, because Devah, Ramana and Alvis are, above all, ignorant and unskilful people." He adds further, "Far from protesting, we would have approved, if serious experiments with well-known mediums had been instituted in order to solve the mystery of the Abbé D.'s disappearance."

²Louis Maurecy, "Expériences de psychométrie," *Echo du Merveilleux*, 1906, p. 33.

"As I had with me a small carriage-clock," says Paul Bourget,¹ "Mrs. P. was able to tell me to whom it had formerly belonged and how he died (a suicide by immersion, in a fit of madness)." In Ernest Bozzano's work, already quoted (*Annales des Sciences Psychiques*, 1906, p. 543), will be found six experiments in psychometry by the same medium, Mrs. Piper; they have been described by Hodgson.

The *Bulletin de la Société d'Etudes Psychiques de Nancy* (No. of Nov., Dec., 1904) records queer experiments made by the French "medium psychometer", known under the assumed name of Phaneg. Mme. V. gives a handkerchief to her husband; Phaneg diagnoses that he is ill (this is true); he perceives that the patient's condition is getting worse, especially regarding the bowels. "Nine days later my husband was seized with a cerebral congestion and paralysis was extended to the intestine."²

Mme. Louise Maurecy relates in the *Echo du Merveilleux* of Jan. 15, 1906, analogous experiments successively made at the house of M. Dace, "the well-known young occultist," by four "medium psychometers." The object used was a revolver carefully wrapped up in brown paper so as to conceal its shape." It had belonged to a young man, who after a first unsuccessful attempt had committed suicide near Paris.

The first medium sees a woman asleep, who is seized with fever and sets out for a journey to an unknown country with great fear; she gets up, perceives that her condition is getting worse and that she is about to die. The second sees a man in a street blocked by vehicles; he enters a tramway car; beyond the fortifications three detonations are heard; he is wounded; a lady meets him, then a young lady

¹Paul Bourget, "Lettre à M. Ch. R.," *Annales des Sciences Psychiques*, 1895, p. 72.

²*Annales des Sciences Psychiques*, 1905, p. 49.

comes near him and is led away by an officer; he fires at his left temple (the medium soon makes an correction—at the right temple), he is dead. The third medium sees fog around him and feels that electricity is pricking him. A man has used this revolver during an assault at night; he runs away, having killed some one on the spot. He makes a careful examination of indications of every description; he pays a visit to Paris and writes down many remarks about it. The fourth has an impression of a penetrating wound caused by a shot; he sees a shop and a man with a white blouse giving orders to workmen who whistle; he sees also heaps of iron, and a stout gentleman whose waist is girt with a sash; and blood that runs from a head as from a hole; “the same man as before, his arms crosswise, is stretched on the ground as if beaten to death.”

M. Dace knew vaguely what was the matter. Mme. Louise Maurecy concludes: “The triflings do not annihilate the fact itself, i. e. the probability that, in certain conditions, it is possible to evoke the memory of things and to make them speak. Thus walls and stones on our way, old trees and trinkets, spring into a fanciful life; they have witnessed many things which they will perhaps be able to tell us some day.”

Information was given in July, 1906, by daily newspapers (*L'Eclair, Le Matin*)—“and every one was wondering at it”—that M. Gayet, the erudite, indefatigable and witty superintendent of the excavations at Antinoé, had brought back the gilt mummy of one of the concubines of Antinoüs; he had trusted to a psychometer a ring found in the same sepulcher, so as to get a clear idea concerning the life of this Bacchante, the priestess of the worship of Dionysios, and a great royal favorite. “First the psychometer stared at the ring; then he closed his eyes and placed it on his forehead. After a while his face was altered, wrinkled with nervous

contractions. Sometimes his features were distorted as when the vision was too frightful or tragical." He then describes a gorgeous procession of Bacchantes, their dances, the objects they carry (which have been found by M. Gayet in the sarcophagus). M. Gayet declares that the vision of this man is absolutely conformable to old manuscripts; that he most accurately and most minutely related history told by the dead woman, as well as by the object I found in her coffin.¹

The psychometer, a M. P., not only described the procession of Dionysia, but also "the orgies and private life of the favorite, who, by way of amusement, carried the hearts of doves on her long golden hairpin." And M. Gayet adds, "He has told me her name, a sweet one, Artemisia."²

Queer experiments in psychometry will also be found described in *McClure's Magazine*, as related by Carl Schurz of New York. With a lock of hair belonging to the author, the clairvoyant gave a full account of his temper, mood, and mental faculties, with so much accuracy that Mr. Schurz was surprised. Even some particulars of his own mind which he did not know, were disclosed to him. Through a fragment of a letter written by some general, she revealed that he was having a lark at Brussels "with a person whom he loved fondly."³

79. DISCUSSION OF CASES.

a. Cases of Telepathy are not Hallucinations, but their Scientific Existence is not Established.

One may infer from the preceding paragraph that the matter of telepathy, under its various aspects, is quite in-

¹Gaston Méry, "La Psychométrie. A propos de la Bacchante d'Antinsé," *Echo du Merveilleux*, 1906, p. 261.

²"La momie dorée. Favorite d'Antinoüs," *Le Matin*, July 4, 1906.

³See also, "La psychographie," *Echo du Merveilleux*, 1906, p. 360.

teresting, and that facts about it are accumulating. It would be childish to deny, *a priori*, all these experiments, and to deem them at large to be frauds and tricks. I go even so far as to believe that they ought not to be sorted in the same range as hallucinations.

As Armand Bussy¹ remarks: "While hallucination is a perception with no outward object to cause it, the telepathical vision is, on the contrary, responsive to a simultaneous and precise material fact, occurring in such conditions as to be capable of exerting a direct impression over the sense organs." By adding the word "veracious" to hallucination, Charles Richet is merely joining two contradictory terms. For a veracious hallucination is no longer a hallucination; it is either a sensation or a real impression.

Therefore, should telepathical facts be real, they are not to be sorted among hallucinations. The main point is to know whether they exist or not—that is, in case their scientific existence has not been established. As far as I am concerned, I do not think so, and I am not alone in expressing this opinion.

Charles Richet, whose generous ideas and scientific liberalism are well known, writes in his preface to the French version of Gurney, Myers and Podmore's book (pp. VIII and IX) in reference to facts so conscientiously gathered by these authors: "The conviction afforded by such reports is quite frail. The experimental demonstrations are unfortunately defective enough to enable us to remain incredulous. It is obvious that, now and then, beautiful results have been obtained, and for my part, I deem them very conclusive without pretending that they are definitive. Alchemists were longing for the supreme experiment, *experimentum crucis*, which they thought to crown their ef-

¹Armand Bussy, "La question spirite et les médecins," *Medicina*, April-May, 1906, p. 21.

forts. Now, no one has succeeded as yet in making this *experimentum crucis*. There have been remarkable experiments, also some attempts that have been 'almost' successful, but which, in spite of their success, have always left too much room for skepticism and unbelief, like a 'caput mortuum,' to use the alchemist's expression, which allows us to doubt and hinders us from being utterly convinced."

I hope this opinion will appear more plain and more precise after the following brief considerations.

b. No Case Verifies Divination or Prophecy.

I have said above that from a scientific standpoint, i. e. without the supernatural, there is no room for divination or prophecy. There is only a possibility of existence for presentiments leaning upon unconscious and more or less complex ratiocinations. None of the facts disclosed as divinations or prophecies seem to be so demonstrative as to invalidate this opinion.

Dariex has correctly said with regard to Mlle. Couesdon, that nearly all prophecies are given out in a vague manner, allowing us to believe that they are fulfilled by the most reverse and contradictory events. If they are referring to war or to other disaster, they do not mention the country in which it is to happen, neither do they declare who will be victorious, nor the exact date of the event. Now, within an unlimited space of time there is always a war somewhere, or an event of some kind which it would be possible to call a disaster.

In fact, diviners are merely telling what their psychism, more or less trained, what their more or less disaggregated polygonal psychism enables them to say, or what it inspires in them. The growth of the prophetic vocation of Mlle. Couesdon (such as I have related above, according to Le

Menant des Chesnais) is very instructive in this respect, and seems to be pretty similar to Helen Smith's case.

In order to verify some prophecies we have to make wonders of ingenuousness. Here is, for instance, the question written by Nostradamus in which some authors have thought to find a forecast of the Courrières disaster:

Fathers and mothers dead after immense bereavements:
 Women in mourning, a monstrous pestilence.
 The great man is no more: the whole world comes to an end.
 In peace, rest, all sorrows being swept away.

The following interpretation has been given: *deul* (old French for "deuil," mourning), indicates a momentous mourning that is to take place on the banks of the *Deule* river (near Courrières); a monstrous pestilence will be caused by corpses; the great man signifies President Loubet, whose seven years are coming to a close; the whole world ending, means that the House of the Deputies are completing their charge. If circumstances had required it, would it have not been easier to apply this quatrain to the Russo-Japanese war, to the war of 1870, to the Martinique disaster, to the loss of the submarine "Lutin," or to the blowing up of the battleship "Jena?"

We have seen that Baron de Novaye pretended to explain and reconcile two prophecies which foretold a reverse result of war, and the success of a prediction made to Voltaire. In Mme. de Thèbes's *Almanac* for 1905, one could read for instance: "During the first season of 1905, kings will be talked of much more than usually, and I hope it will not be the same with their consorts. I fear lest we should in the beginning of 1905 be driven into a dangerous war. I believe 1905 will be a red year after a gray one. England will have her share of fears. Germany also will be plunged into grief. 1905 will afford us the compensation of a fresh victory in the realm of thought."

Scarce are the years in which it would be impossible, with a little skill, to detect proof of the reality of prophecies so utterly vague. She says further that "a violent agitation will occur in Belgium during the second half of 1905; the future there is quite dark, and this small country will be the cause of a general conflagration in Europe much earlier than those famous Balkans so frequently referred to." This is a precise prediction which has been fulfilled neither during the second half-year of 1905, nor during the whole year of 1906. I do not insist upon the date of the end of the world, such as has been settled by the Congress of Prophets.

I believe I am in a position to assert that the power of divination or prophecy has not yet been scientifically verified by anybody (I always set the supernatural aside), and this is true of all conditions of trances, hypnosis, etc. Neither hypnotism nor somnambulism nor mediumship is developing or growing such a power in anyone.

c. Many Telepathical Cases are Disocculted, Owing to our Actual Knowledge of the Lower Psychism.

The matter of telepathy, which has already been released from the domain of divination and prophecy, will be still more cleared up if we consider all the facts which the physiology as known to-day of unconscious and involuntary or lower psychism enables us to explain, and consequently to "disoccult."

Thus, if, as I believe, there are spring-finders, i. e. persons specially qualified for detecting springs—there is nothing occult or marvellous in it, even when they make their hazel-tree wand turn. Likewise, as regards the researches of a different kind, some subjects are more successful than others. Even in cases when it is sure that subjects are able to "scent" and detect corpses, this does not prove the reality of telepathy. Besides, many notions are stored

within our unconscious or lower memory, and we do not know their origin; they may, at a given moment, afford us the illusion of a discovery or of a revelation.

Is it impossible to appeal to such an explanation in the case (quoted by Maxwell) of the lady who saw through a crystal ball the shape of a little dog that she did not know at all. She was, a few days later, presented with a little dog exactly similar (?) to the one she had seen through the crystal ball. All cases quoted above, and they are many,¹ are, as a matter of fact, things unconsciously seen already, or rather are polygonal reminiscences,² removed from the range of telepathy and premonition.

d. Others Explained by Coincidences.

Apart from the previous restrictions, there still remain a good many other instances of telepathy or remote premonition. Concerning them I must repeat the objection so frequently made, but nevertheless very weighty. I mean coincidence. I have often listened to the strange case (cited already) of the wife of the soldier who was killed on the Eastern frontier, and how she received at Montpellier telepathical impression of his death. But no one has heeded the previous hours of anxiety during which she had, many a time, thought of her husband's violent death. One has remembered only the case that was coincident with reality.³

¹Vide "Le Psychisme Inférieur," by Dr. J. Grasset; "Etude de physiopathologie clinique des centres nerveux," Bibliothèque de philosophie expérimentale (1906), pp. 193 and seq. Paris, Chevalier et Rivière.

²See above, Part III, 42.

³In the course of a conversation on motor cars, and the accidents caused by them, M. Juttet says: "I have a fright over motor cars. I have a presentiment that my death will be provoked by a motor car." Indeed M. Juttet died in a motor-car accident (*Echo du Merveilleux*, 1905, p. 377). In order to ascribe a value to this evidence, one should think of the many persons who have had presentiments of this kind, as to motor cars, carriages, or railways, and who have experienced no accident at all.

In many circumstances a casual coincidence may be thought of. Bourdeau¹ says: "If there are a few instances in which presentiments and hallucinations are coincident with death or sickness, we find a great number of cases when such a concordance is not fulfilled. Let us suppose that a regiment practises target-firing during the night. It may happen that a few bullets reach the mark shot at, but it is impossible to infer from it that some soldiers have a power of clairvoyance."

A psychologist cited by Gurney, Myers, and Podmore has asserted that "facts ascribed to telepathy may be explained by this consideration: that one person at least out of a hundred is liable to have dreams, illusions, visions, etc. of remarkable precision, and each of those persons has a dream or a vision once a week. Gurney, Myers, and Podmore acknowledge that. As to groups of those who see their friends appear once a week, the evidence of one of these hallucinations with the death of the person appearing, would be of no interest. But, we have never verified a fact of this kind." This is quite true, this has not been established because a dream becomes important only when it is fulfilled. For this reason one should not, like Gurney, Myers and Podmore, call "superficial" any arguing which "lumps dreams, hallucinations, impressions, monitions and premonitions." A differentiation of the terms of this lumping is only made afterwards, owing to the result.

The following question has recently been very much discussed:² "Why, after having wrongly believed one has recognized a passerby, do we often meet a little later with the person we had imagined that we saw?" This is a very

¹Bourdeau, *Journal des Débats*, Aug. 28, 1906.

²*Cf.* Dr. G. C. Ferrari, "Prévision ou prémonition à rappel," *Annales des Sciences Psychiques*, 1905, p. 585; and Dr. Roch, "Note sur les prévisions de rencontre," *Archives de Psychologie*, 1905, t. V, p. 149.

common fact, exprest by folks saying in all languages: "quand on croit voir le loup, c'est qu'il n'est pas loin," or "quand on croit voir le loup, on en voit la queue"; "talk of the devil and he will appear"; "quand si parla del sole, il sole spunta"; "roba nominata è per la strada," etc.

Many authors are interpreting this fact by a telepathical and premonitory influence of the person one is about to meet. But here follow Roch's quite judicious remarks. He makes of those cases an act of the lower psychism, or a coincidence; it seems to me that both explanations are destroying a good part of the telepathical question.

"In short, we frequently think of a person in the place where we are accustomed to meet him, or in a place where he might otherwise be, because of his tastes, habits, etc. No wonder, then, that we believe we see him; no wonder, either, that we really see him. Out of ten instances, this explanation has six times proved satisfactory to me. Besides, it happens that we unconsciously have a glimpse of him at a distance, and then we imagine we recognize him near us. It is no wonder then, if a little after such a mistake we meet with this person. Three times out of ten I have been able to recall such a fact of subconscious vision, and with great probability. Finally, a mere coincidence may perfectly explain facts that cannot be included in both categories just stated. For, it is more frequent than we usually think, that the image of a person known, is evoked by a vague likeness. Besides, only once out of ten times do I consider that there has been a mere coincidence. Consequently I do not think it necessary to appeal to telepathy, induction at a distance, etc."¹

¹As I do not wish to mangle this citation, I give here the final sentence: "I shall, however, abstain from denying that actions of this kind may cause the phenomenon I am dealing with, but I have no reason to admit it either."

Besides, the concordance between the sensation called telepathical and the event which would be the starting-point, is not always perfect. Some sensations of this kind are not veracious, but false, and are not fulfilled. Some others, and they are many, are vague;¹ they admit of various interpretations, and are subsequently applied to the facts owing to complex and contestable reasonings.

When, years ago, I set out for Paris in order to undergo my examination for the degree of assistant professor, I had a distinct presentiment that I was to catch typhoid fever there. What a fine instance of telepathy this would have been in case my presentiment had been fulfilled! I never had typhoid fever. The result deceived my expectation. I have dismissed this case from my mind, or rather, it has been of value no longer. The mother of a relative of mine whose telepathical impressions I have stated regarding the death of her husband, had, a few years ago, a very distinct presentiment that she would no more see her grandson, who was then setting out for a rather long absence. Although she was very old, she saw her grandson again, but every one in the family has abstained from talking of this failure, but we have often referred to the incident of the war as above quoted.

A woman said to Cardinal Langénieux when he was seven years old: "My child, you will be a bishop, and you will anoint the king." The child became bishop of Tarbes, then Archbishop of Reims, but he died without having anointed the king.²

Candargy³ has related the strange story of a stolen fur

¹*Cf.* as I have said above in reference to Mlle. Couesdon.

²"Monseigneur Langénieux et le Roi de France," *Echo du Merveilleux*, 1904, p. 451.

³P. C. Candargy, "Histoire d'une fourrure volée," *Annales des Sciences Psychiques*, 1906, p. 624.

garment which was found through a round table. If we investigate the case, we find that the table indicated No. 39 of the rue du Louvre, Paris. There is no such number. At No. 15 there is a fur merchant, Ulmann. The table called him Llunis. The place of this Ulmann, who had died five years earlier, had been taken by a M. Goldsmith, who acknowledged that the stolen fur had been brought to him, but he did not have it; it was with a broker; there, the owner of the sable fur declared that it was not his."¹

Charles Richet received a message quoted above: "Banca, death awaits family" at the very day and hour when Queen Draga was murdered. Is it enough that the unfortunate queen's father was called Panta in order to make this fact worthy of note?

I have cited experiments in psychometry as related by Mme. Louise Maurecy. A revolver was brought to mediums and they made fanciful descriptions of all possible manner of deaths, of the struggle, of ruffians, of nightly assault, as well as of suicide. Likewise, concerning Phaneg's experiments; prediction was made to a patient that he would grievously suffer from intestinal trouble; he soon died from cerebral congestion. Indeed, it appeared that he had at the same time paralysis of the intestine, but he most likely had also paralysis of the bladder and of one arm or leg, so that the medium would have been equally right in foretelling death by means of a disorder of one of those organs or even of the lungs or the heart.

This reminds me of descriptions of diseases for which the "Pink pills for pale people" are recommended, and in which every patient recognizes all the symptoms of his own case.²

¹"It does not much matter," as the author remarks, "if the mysterious detective was mistaken in following on the track of the sable fur, and if the fur he found was another, similar to it."

²Here is, for instance, a diagnosis by Phaneg: "This person is suffering

Flournoy relates in a work already quoted, the *Annales* (1899) some incidents of erroneous telepathy. He scrutinizes them in a remarkable manner. As to Mme. Z., who perceives clearly the death of M. R., "It is evident that the idea of M. R.'s possible death, with all its concomitant circumstances and consequences has at least floated over her mind, especially because of her feelings toward him. Is there not more than one mother who has been anxious for the fate of an absent child, more than one spiritual guide, minding the eternal destiny of a beloved soul, to whom imagination has many a time shown the tragical and solemn picture of the beloved one's last moments? And if we look among the group of remembrances, reasonings, fears and suppositions involved in such an idea occurring to the mind of Mme. Z., do we not unavoidably meet again with the so-called messages of M. R.?"

One should read in the same work the genesis of a slanderous message which led M. Til to charge his son with a theft at his employer's house. The young man's dismissal ensued, but there was absolutely nothing true in the statement.

e. How Experimentation Ought to be Instituted in Order to Become Demonstrative.

I think I may lay down as a principle that incidents alone prove nothing, even when, as has been done by Gurney, Myers and Podmore, a great number of them have been gathered. In such cases, a long cross-examination, *with the same subject*, is necessary, i. e. the same person during

from the head. I see him staggering upon his legs. There is general depression. The stomach is working badly. The person is paralyzed." After this description, which might be applied to many sick people, from the neuropathic up to the organic paralytic, the woman exclaims: "This is absolutely the condition of my poor husband!"

months and years ought to note down accurately all the impressions he feels which are liable to telepathical interpretations; he should also take an account of the concordance, or the non-concordance, of the event, and it should consequently be possible to ascertain if the proportion of coincidences is really, with certain subjects, greater than is allowed by the theory of probability and coincidences.

I have thus, now and then, indicated at some length all the impressions which I deem to be of the telepathical order.

When traveling, especially, I have many a time thought that my children were ill, or that an accident had occurred. I felt sure I would find, when coming back, a messenger of this bad news. Never was my expectation verified. Once, only, I suddenly woke up at the very time when one of my near relations was dying. I was very fond of her, as she had educated me. She was very old. I had spent long hours by day and night near her, and the whole previous evening, since I knew she was very ill. What importance should I ascribe to so simple and natural a coincidence? One might object that I am not a medium. Quite so. But I have cited many instances that are not more conclusive.

Gurney, Myers and Podmore relate that, as the Rev. Frederick Barker was going to bed, he saw his aunt near him. She smiled and disappeared. This person died that very night at a far distance. What shall we infer from the coincidence between this momentous event and a superficial and commonplace dream, similar to hundreds or thousands of dreams the reverend gentleman had, without their being coincident with any misfortune whatever?

The same authors¹ declare that the theory of coincidences cannot be sustained because these surprising coincidences

¹Gurney, Myers and Podmore, "The Phantasms of the Living," and the whole chapter, "Theory of fortuitous coincidence."

are repeated. The argument would be of importance if such coincidences were frequently repeated in the same person. But a collection of incidents whose origin is utterly different is no proof against the theory of coincidences."

Marillier perfectly states the matter in his preface to a well-known report when he says that the inquiry, simultaneously instituted in England, France and the United States,¹ had three objects in view. *First*, to gather documents referring to telepathy. *Second*, to establish the proportion of hallucinations that are coincident with a real event to the total number of hallucinations with normal subjects. *Third*, to verify the proportion of persons who have experienced one, or several, hallucinations, to the number of the whole population. "And," he adds, "I need not say that in order to give those returns all their value, negative answers should be given as well as positive ones."² He adds some precise warnings as to the manner in which those documents should be gathered.

I wish extended observations of this kind could be instituted with mediums and with any bona fide persons, who would take part in them. I wish also that a great number of incidents, either negative or positive, with the same person, could be given. We would then be able to criticize them. As long as this work has not been achieved, I assert

¹The inquest was conducted in France by a committee consisting of Messrs. Sully-Prudhomme, Gilbert Ballet, Beaunis, Charles Richet, de Rochas and Marillier.

²This has not been universally understood. Fabius de Champville has made a proposal to the "Société Magnétique de France," to gather all "predictions" under sealed envelopes, which could be subsequently opened at a given date, and "the contents faithfully rewritten in a return especially made, and given the widest notoriety by the Society, when such predictions should have been fulfilled." The proposal of M. Fabius de Champville was unanimously adopted (*Annales des Sciences Psychiques*, 1906, p. 460).

that the existence of telepathy and premonitions is not as yet scientifically verified.¹

As the conclusion of this section, I repeat that above all, we ought to abstain from reasoning by analogy in those matters, as for instance, that wireless telegraphy is a proof that telepathy is real. Not in the least. Wireless telegraphy proves what we knew before, that telepathy is not impossible, but it does not prove its reality at all.²

II. MATERIAL BROUGHT FROM LONG DISTANCES

After these sensory phenomena we will now discuss motor phenomena, always at a long distance. These are flowers, fruit, letters, or other objects brought from places far away.

80. CASES.

a. Anna Rothe and Heinrich Melzer.

I have already mentioned the "flower medium," Anna Rothe, and her vicissitudes. One year after her death, Heinrich Melzer, of Dresden, repeated her experiments at Leipzig.³

On November 29, 1905, after nightfall, "the lamps were lit and the medium was seen standing and holding in his

¹Gaston Méry (*L'Echo du Merveilleux*, 1907) cites a sentence of Camille Flammarion: "The action of one mind over another at a distance, without the help of sight, of touch or hearing, without the help of any of our five senses, is a fact as certain as the existence of electricity, of oxygen, or of Sirius"; and he (Gaston Méry) adds: "This assertion is perhaps somewhat peremptory; I should even say very hazardous."

²*Vide* also, with regard to telepathy, Vaschide and Pièron, "Contribution à l'étude expérimentale des phénomènes de la télépathie," *Bulletin de l'Institut général psychologique*, 1902, t. II, p. 116; Melinand, C. R. de Dumas, *Ibid.*, p. 139; and Vaschide, "Quelques mots sur les phénomènes télépathiques," *Ibid.*, p. 240.

³"Un nouveau 'médium aux fleurs' en Allemagne," *Annales des Sciences Psychiques*, 1906, p. 458 (after "Uebersinnliche Welt").

hands a small jar containing one flower, while the onlooker on the left had a little myrtle in his hand." A little later, under analogous circumstances, the floor was covered with leaves and flowers of the lily of the valley. On February 13, 1906, the light was put out, and a little later many leaves and flowers of the Italian lily of the valley were discovered. On March 17, 1906, as soon as the lamps were lit, Mr. Fielder found that he had a beautiful orchid in his hand, and Mr. Horra was holding a small bunch of three white roses."

*b. Donald MacNab*¹ (1888).

On September 18, 1888, when MacNab was with a medium at the Rue Lepic, Montmartre, he wrote a letter, traced M. C.'s name on the envelope, and placed it at 2 o'clock P. M. on a table, with a sheet of paper over it. At half-past two the letter had disappeared. At 2:45 M. C. found it on a shelf near him, at his home in the Place Wagram (which is at a distance of four kilometers from the Rue Lepic. The ride in a tramway car occupies half an hour). This experiment has been repeatedly made. Says MacNab:

"It frequently occurred that things belonging to none of us, were found on the table at dinner time, or fell down upon it. At first we found an Indian perfuming pan, a terracotta Jewish lamp, then a humerus—a numbered anatomical fragment—which was put in my pocket when nobody was near; a gilt-copper compass, which was thrown to me, although nobody had made a movement, a small knife which fell down by my side. At last I succeeded in learning who was the owner of those objects. He was a printer whom we knew. When I brought them back to M. S., he flew into a passion, and said I had obtained a double key of his home

¹Donald MacNab, "Etude expérimentale de quelques phénomènes de psychique," *Echo du Merveilleux*, 1906, pp. 111 and 132 (after the "Lotus Rouge"). *Vide* also de Rochas, "L'extériorisation de la motricité."

in order to rob him. Next he was very much surprised and promised to write me a letter which he would place on the table. On the following Monday he did so, and the day after we heard raps caused by the table. We spelt out the word 'letter,' and I immediately saw on the napkin before me the letter written on the previous day by M. S. Then I wrote him a note which I placed on a piece of furniture, and on the same evening M. S. found it on his chimney over a candlestick."

"At another time," says the same author, "I had warned absolutely nobody, either at the starting-point or the place of arrival. I penned my letter, which I placed under a mourning envelope, together with a sheet of blank paper. The letter was in the pocket of a medium, and almost at once it disappeared. I went to the addressee's house, applied directly to him, and asked him to search the inner pocket of his riding-coat, which was tightly buttoned. He did so accordingly, and was very much surprised to take my envelope out of it. He ascertained that it bore marks of burning, and found my letter with the second sheet on which were traced in black ink the following words as an answer to my letter: We take notice of this arrival at 8.5, and we are here" (the handwriting was very similar to that of the addressee).¹

One evening in Australia, while Bailey was entranced, it was asserted that a piece of sandstone, still wet with salt water, and of a weight of six pounds, had mysteriously fallen down on a table near him; from that day articles brought in were frequently found.

At Milan, on March 1, 1904, after the darkness, a red light was lit. At this moment it was possible to see in the medium's left hand a small nest about ten centimeters

¹César de Vesme, "Mémoires cités," *Annales des Sciences Psychiques*, 1905, pp. 218-308 and 309; and 1906, p. 396.

wide, and four centimeters deep, made of small straw mixed with flocks of cotton. This nest, warm to the touch, contained a small egg of the size of a hazelnut. The spirit explained that this was a nest of "munies," little white birds of Australia, known also in Italy.

On March 4, the spirit gave profuse explanations respecting tables at Babylon covered with cuneiform inscriptions. Another spirit was going to Babylon to dig up a table. In the darkness "a sharp noise was heard as if a stone had fallen accidentally on the table. The red light was lit; the onlookers came nearer and found on the round table something wrapt up in a rather obdurate layer of sand. It was wiped, and then cuneiform inscriptions were discovered on one of its surfaces." On March 25, 1905, in the darkness, "almost all the bystanders smell a bitter marine odor, while from the table, then on the floor came dull knockings, like slaps on the face. The same spirit required more bright red light, and exhibited a fish whose tail he held; a fish about 15 centimeters long and resembling a mullet. Everyone was able to verify the existence of the fish, and it was much debated, without any conclusion, whatever, whether he was dead or not."

On March 8, 1905, at the red light, every one was able to see that from the medium's clenched right hand, "the head of a little bird was emerging. It was of an almost dark color, absolutely soft to the touch. Its eyes were sparkling. A small, black wing streaked with yellow showed between the medium's fingers."

81. DISCUSSION.

a. Conscious Frauds.

It seems that usually in experiments of this kind the control is quite imperfect and defective, or that when made in better conditions, it makes frauds conspicuous.

I do not speak again about Anna Rothe and Sarak. As to Melzer, he does not operate in full light as does Anna Rothe. "With this medium we are drawing back a little in this respect, at least." The critic of the *Annales des Sciences Psychiques* adds: "It will be impossible to ascribe a value to these séances as long as the medium is not in any manner whatever set apart from the bystanders. The reality of these phenomena should not depend upon the trust we may have in all experimentalists without exception, chiefly because all of them are not perfectly known."

MacNab observes rightly concerning the phenomena of material mysteriously conveyed: "All conjurers do this, and we ought to remark that when a medium finds himself in the condition in which the phenomenon is taking place, he acquires a skill far superior to the dexterity of the most capable conjurers, and still, he does not seem to be asleep." In reference to his own experiments with "objects transferred to long distances," he declares that they are numerous, but lack strict control. Respecting the case quoted above of things brought from the Rue Lepic to the Place Wagram, he honestly asserts that he lost sight of the medium while he was absent somewhere giving lessons, and this takes away a good deal of the value of the experiment. Further, he says: "All this lacks control."

I have already dealt with the critique of Ch. Bailey's experiments, made by C. de Vesme: this is quite interesting. We have seen here that the medium would never agree to undress himself completely, fearing lest he should catch cold. Now "when we are dealing with phenomena such as those of material mysteriously conveyed, a personal search of the medium's body becomes obviously essential." All those physical phenomena are happening in the darkness. The medium is entirely at liberty to brew mischief in his sackcloth, while "the learned Prof. Robinson," or

“the fierce Nana Sahib” is talking through his mouth. Reversely, with Mr. Bailey, when the light is turned on the phenomenon is achieved. There remain only the objects mysteriously brought.

During an experiment, when a bird appears in the medium's hand a bystander opens a door to let a sparkling light enter the room. The medium makes a strong protest, turns his back on the light, and at the same time Dr. Clericetti, who had not lost sight of the bird, ascertains that it is disappearing amid this torrent of light, although the hand has not been open and the bird's escape has not been heeded. This episode shows us, for the first and last time, an object that disappears before the light, under the eyes of an experimentalist. Conjurers make objects even larger get out of the way, and this, in conditions far superior for investigation, whilst every one is looking at them in full light. In fact, it is rather wonderful that it should be possible to conceal living birds without suffocating or crushing them. My admiration has always been aroused by it during exhibitions of juggling that I have witnessed.

I have already indicated many improbabilities in the archeological material brought to light. “Prof. Denton, through Bailey's mouth, is in a position to tell us that, contrary to all data of the paleontological or paleogeographical critique of our epoch, the age of the world (or even of mankind) is now six thousand years.”

C. de Vesme, at the end of his statement, in which he tries “to stick to perfect impartiality,” asks of his readers whether they are not of opinion that a quite peculiar brain power, an absolute longing for the triumph of spiritualism, is necessary in order to establish upon such proofs, the belief in so extraordinary and so much debated a phenomenon, of which psychologists of a high standard of scientific knowledge, such as Sir Oliver Lodge, assert they have never

witnessed only one instance that can be scientifically established. We feel an almost irreducible dislike for believing that during a séance the "so-called fluidic body of the medium was freed to such an extent as to go to Babylon and make archeological researches there, or that it was running after birds in Australian forests in order to bring back the spoils of his researches or fowling to the members of the Milan Society for Physical Researches."

b. Unconscious Frauds.

Here also the lower psychism may be interfering and cause unconscious frauds. Such is the following case reported by Pierre Janet in his preface to my book, "Le Spiritisme devant la Science":¹

"Two years ago, a young woman aged 26, was led to Prof. Reymond's ward at the Salpêtrière. As had been asserted, painful fantasms were unhinging her; this patient (let us call her M.) was led by two ladies, her mother and her aunt, who belonged to the middle class, and had been pretty well educated. Her father, who had died a few years earlier, was an officer. The family had preserved a good many acquaintances among officers and merchants. This young woman was well dressed; she spoke well and without difficulty, as her education and instruction had been rather above the average. She went to the Salpêtrière in order to take advice because troubled with hysterical hallucinations.

"After having verified the nature of the actual phenomenon, I insisted on being told her by relatives what had preceded or prepared such remarkable hallucinations. I hinted that she had most likely had nervous attacks—fits in sleep, for instance. Both ladies were shocked and made strong protests, declaring that the young woman had never expe-

¹This observation was brought before the Paris Société de Psychologie in December, 1902.

rienced anything of the sort. Next, I asked if there had been any visual hallucinations before. At this moment the family seemed to be rather at a loss; the aunt answered in the negative whilst the mother made denial. Then both ladies had a quarrel and the mother said: 'This is not the doctor's business.' My curiosity was aroused by this, and by interrogating separately each lady and the patient, I succeeded in disclosing a rather queer adventure.

"The patient, whose father had been addicted to drinking absinthe and died in a lunatic asylum, had always been strange. She had long experienced hallucinations. At the age of eight she had visions of angels attired in gorgeous white robes, and she could see them even by daylight. At the time of puberty (from 10 to 12 years), she was very much disturbed by those images, which were constantly of a religious character. She had also numerous auditory hallucinations, for the angels were giving her verbal teachings, and she learned from them her catechism. She had a custom of calling one of them St. Philomena, without others ever knowing the reason why, and afterwards the little saint played a prominent part in her life. When twelve years old her catamenia were normal, and it seems that her hallucinations ceased until the age of seventeen. At this moment different emotions, disappointed love, the illness and confinement of her father, upset her, and she again had hallucinations, which in fact did not vanish until her actual disease, at the age of twenty-six.

"About this same period, the mother, who had become a widow, being unhappy and very likely predisposed to it, took refuge in the spirit doctrine. She was accordingly marveling at her daughter's hallucinations, and most sincerely believed in the interference of angels and spirits. As I attempted to offer a few objections, the three ladies became indignant, and readily declared that they had irrefu-

table evidence of the reality of St. Philomena and the angels.

“Those were objects brought by the saint from heaven. I thus knew and was very much surprised to know that those hallucinations were complicated by phenomena of material brought.

“In order to convince me, the young woman brought me a collection of objects as miraculously given to her by the saint. I have a box full of them. There were feathers of birds, especially down, which most likely had been taken out of her eider-down; a few withered flowers; pebbles of a strange color; some fragments of glass; a few common silver jewels; a small angel with wings unfolded, which was apparently a fragment of a broken brooch. M. told me that she had a chest of drawers full of such objects which she kept carefully because she believed earnestly that they had been carried to her by the saint. All her family and chiefly a cousin of hers venerated those relics and took part in her belief.

“The patient very candidly placed herself at my disposal, so that I might detect the modes of acting used by the saint; she helped me to make conspicuous the error. She experienced much wonder when I pointed out to her the truth and readily gave up her fancies.¹

“First of all, M. has related as accurately as possible how things occurred. Now and then, in any place whatever, but chiefly the staircase, in her lodgings, or in her room, she found objects which were not in their proper places at all. This is the main point: objects found in abnormal and strange places, for instance sparkling flint stones on the staircase, or on the landing of the second floor; bird feathers on the table of the dining-room; a small jewel which she did not

¹Actually in this group of spirit-believers, the mother alone remained confident; she was unshaken.

own, within her eiderdown; steel pens or glass fragments placed so as to make a cross on a small table of her bedroom. Those objects, or rather the places where she found them, surprised her, and she was quickly believing—without knowing the reason why—that the saint had brought them there. She could not always tell from what she had derived her belief, but it was strong in her, and so imparted to the others. Sometimes things would publicly happen and everyone would marvel at them. Thus, during a family dinner, feathers fell from the ceiling down on to the table. All were surprised and agreed, previous to having spoken, that those feathers had not come in a natural way, but must have been brought by the saint.

“In order to go further I tried to arouse the subject’s remembrances, either at waking or during the hypnotic sleep. It was enough to concentrate her attention on the moment preceding or following the discovery of the objects. M. found remembrances which astounded her, and I was able to ascertain that in her case the material was not always brought in the same manner. One should make a distinction between three stages of the phenomenon which are, however, connected with each other and with an increasing intricacy.

“The first stage is the simplest. The object reached its place accidentally; it is a sparkling pebble on the sidewalk or on the staircase; every one would be wondering for awhile at this fact, which strikes far more the patient whose mind is engrossed by objects found in an abnormal place. This causes an emotion and consequently a short stupor, a kind of depression of the mental level, in which she gets a clear idea of her real circumstances, and then finds herself again involved in hallucinations. At this moment the saint is appearing, and she tells M. that she herself placed the pebble there so as to give her pleasure. The idea of

things delivered, already deeply imprest in the patient's mind because of the spiritualistic opinions of her friends, grows into a subconscious phenomenon provoking a visual and auditory hallucination. The alteration of the idea into an hallucination provokes a conviction in the mind of this suggestible hysteric. Such a conviction is contagious, and the whole small group is marveling at this pebble found accidentally.

"This is the most common case. Intricate conditions supervene when objects not usually found in the patient's bedroom are concerned. Hallucinations here mostly happen during the night. M. is a somnambulist. Everyone knows it; she herself would get up during the night when asleep, take a small blue stone, in the shape of a heart, and hide it in the pocket of her pinafore, or she would place on the table some fragments of glass, together with feathers taken out of her eiderdown. When awake the patient was astounded to see them, and whether Philomena interfered or not, by hallucination the belief of M. was the same.

"Finally, in the last group the fit of somnambulism happened in the daytime. The patient asleep was herself surprised. 'In fact,' she said, 'I have myself taken this little silver angel out of the jewel casket, and have brought it to the middle of the room. It is too bad. I also picked some feathers out of my eider-down and spread them on the steps of the staircase.' I aroused in her the remembrance of a very queer scene. Before the family dinner she saw herself climbing on the table, placing a footstool over it so as to be able to reach the ceiling and fix some feathers up there with wet flour. Next she quietly came down, put everything in order and went to her room to dress herself without remembering in the least this vulgar pleasantry. At dinner it is most likely that some feathers got loose, owing to the heat of the lamp, and she was sincerely marveling at it. 'But,' she

said, 'how is it that I have been led to do that?' In fact one may wonder why she tried to deceive during her trifling fits of somnambulism; this is very easy to explain; it was sufficient to induce her to repeat the scene. She brought us pebbles in this manner for the 'museum' of the Salpêtrière, and quite sincerely prepared the deceit. During this her face was quiet and smiling. She went on repeating sentences from her catechism or admonitions issued by the saint; in a word she believed herself to be St. Philomena."

It is impossible to make a more cunning analysis of unconscious frauds in phenomena of things thus transported.

In fact, as to things brought from long distances, as well as concerning telepathy or premonitions, not only the scientific proof of their reality is not established, but it does not seem to be near at hand; the scientific solution is apparently remote, in case it can be ever reached.

III. MATERIALIZATIONS

82. HOW THE QUESTION STANDS.

I include in this section all luminous phenomena and apparitions of ghosts provoked by mediums, and also experiments responsive to them, such as photographs, stamps or images of ghosts. After the survey which we have just made of the exteriorization of the motor force, we are about to make a survey and objectivation of the psychical force. For, and I insist upon it, I am not to enter again into a discussion already made of spiritualism. The question is a different one.

The downfall of spiritualism as a theory does not necessarily imply the destruction of the theory of the materialization of ghosts. In case the fact of materializations be established some day, it will not in the least testify to the reincarnation of spirits, but only to a mighty objectivation

of the medium's thought leading to an object that might impress our senses or the photographic plate.

With this theory—which was, or still is, the theory of MacNab, Lombroso,¹ Charles Richet, Ségard,² Maxwell—it would be impossible to reproach ghosts with the cutting or shape of their clothes,³ or with their language and mental condition. All this is only the expression of the medium's psychism. The ghost is seen exactly as the medium imagines it to be.

83. CASES.

a. Luminous Phenomena.

Many authors have observed luminous phenomena under certain special circumstances of experimentation, Maxwell⁴ has verified in a physiological condition luminous effluvia between finger-tips brought together and then separated. This "somewhat grayish steam" was seen as colored by persons gifted "with psychical powers." The same author remarks: "Sometimes the effluvia is not visible, but the hand itself is phosphorescent." He has seen big phosphorescent drops gliding on Eusapia's bodice.

MacNab⁵ has observed in all well carried-out experiments, the growth of luminous spots resembling ignis fatuus. They are moving like small comets and run after one another like butterflies.⁶

¹Ernest Bozzano, "César Lombroso et la Psychologie Supernormale," *Annales des Sciences Psychiques*, 1906, p. 403.

²Charles Ségard, "Quelques réflexions à propos des phénomènes dits de matérialisation," *Annales des Sciences Psychiques*, 1906, p. 96.

³*Vide Annales des Sciences Psychiques*, 1906, p. 440: "Le résultat du concours ouvert par l'*Occult Review* entre ses lecteurs 'pour la meilleure solution de la question des vêtements des fantômes.'"

⁴Maxwell, *loc. cit.*, p. 118 (the whole of chapter IV).

⁵MacNab, *Echo du Merveilleux*, 1906, p. 87; and de Rochas, work quoted, p. 532.

⁶*Vide* also Reichenbach's eighth report, *loc. cit.*, p. 301; and Dupouy, *loc. cit.*, pp. 49 et seq.

b. Ghosts.

In reference to ghosts, everybody has heard of Katie King, as observed by William Crookes, with his medium Florence Cook.¹ Aksakoff, MacNab,² de Rochas, Charles Richet, Archdeacon Colley,³ Reichel with the California medium Miller, Fotherby, with the medium, Cecil Husk, Van Velsen with a student, and many others, have observed analogous phenomena, and Charles Richet wrote in the *Figaro* of October 9, 1905: "At the risk of being considered a fool by my contemporaries, I believe in the existence of ghosts."⁴

Sometimes incomplete materializations are obtained; it is an arm, or a hand, or a head which is seen or felt. Sometimes a complete ghost is obtained; it may resemble the medium or be quite different from him. It may assume a form or be dissolved within a few seconds. In the *Paris Eclair* of December 24, 1905, Georges Montorgueil gave an account of the struggle he had at MacNab's house, with a ghost that melted under his fingers when the light was lit again.⁵

When discussing these facts I shall relate an analogous experiment made by Colley with a fantom which also melted and disappeared, but left his clothes in the archdeacon's hands. Instead of being outside the medium, the ghost may be mingled with the medium, "transfigured."

¹Concerning Crookes' experiments, either with Home, or with Florence Cook (Katie King), *vide* Albert Lacoste, *loc. cit.*, p. 173.

²Mac Nab, *loc. cit.*, p. 136.

³"L'Archidiacre Colley et les matérialisations dont il fut témoin; comment se formaient les fantômes, en pleine lumière; les mystérieux rapports le corps du fantôme et celui du médium; comment s'expliqueraient certains prétendus démasquements; la pomme mangée par le fantôme," *Annales des Sciences Psychiques*, 1906, p. 26.

⁴*Vide* also Surlbled, "Spirites et Médiums," pp. 41 et seq.

⁵"Comment un fantôme se serait dégagé de l'étreinte d'un expérimentateur," *Annales des Sciences Psychiques*, 1906, p. 54.

Maxwell reported a case of this sort in the *Annales des Sciences Psychiques* (1906, p. 34). Ernest Bozzano¹ has particularly investigated apparitions at the hour of death, and perceivable by the dying person alone or by onlookers only, or even by all of them at the same time. In the *Annales des Sciences Psychiques* (1906, p. 609), Camille Flammarion reported from the *English Mechanic* (July 20, 1906) the Tweedale case, where a deceased person appeared to three people a little after his death.

c. Photographs and Moldings.

Photographs and moldings of ghosts have been taken. Surbled² has well recapitulated the first stages of ghost-photography, together with the first publications of Muller, Beattie, Wagner and Buguet; then the photography of human effluvia by Narkiewicz, Iodko, de Rochas, Baraduc, Luys and David. "More recently," as Delanne³ says, "Captain Volpi obtained a photograph of his betrothed, who was ill then and kept her bed. M. Istrati and Dr. Hasden got, at a long distance, a photograph of one of them who was ill at that time and in bed. Prof. Wagner took a photograph in which the hand of the apparition was emerging out of a cuff whose edge was embroidered identically like that actually worn by the medium." Albert de Rochas⁴ has given out photographs of "doubles." On the foreground there is a young lady whose likeness is striking. In the background is a sort of ghost-fantom, showing her in a similar manner, but thin, old, sick, and on the verge of

¹Ernest Bozzano, "Des apparitions des défunts au lit de mort," *Annales des Sciences Psychiques*, 1906, p. 144.

²Surbled, "Spirites et Médioms," pp. 44 and 55.

³Delanne, "Conférence sur le monde invisible," *Bulletin de la Société d'Etudes Psychiques de Marseille*, 1903, p. 29.

⁴Albert de Rochas, "Photographie spirite," *Annales des Sciences Psychiques*, 1905, p. 581.

death. This fantom is a transparent shadow, since, through it, the folds of the canvas used as a background are visible."

Commandant Darget, of Tours, sent me on November 22, 1906, a single photograph of two persons taken by himself, together with this note: "The fluidic double (June, 1901). The two daughters of M. P., a powerful medium healer, photographed by Commandant Darget in his garden, have their doubles, their astral bodies on their left sides. My apparatus did not stir, neither did the children; the feet are missing in the doubles. Commandant Darget had caused them to be magnetized by their father at the distance of one meter."

The same experimentalist forwarded me also some "thought photographs." A proof dated May 27, 1896, exhibits a bottle which had been obtained by Commandant Darget, by thinking intensely of a bottle he had just been looking at. "On June 5 following he was requested to get another bottle, and this was done in a photograph in the presence of six onlookers who signed the record, which was inserted in the *Revue Scientifique du Spiritisme* in January 1897, together with two engravings of both bottles. Another proof showing a stick, was obtained by M. Darget, by thinking of a walking-stick he had just been looking at, in the red light of his dark-room. Another proof of a 'thought photograph' was obtained by placing for ten minutes a plate over the forehead of Mme. D. when asleep. It showed the image of an eagle."

It has been said that Dr. A. M. Le Veeder,¹ a scientist of Lyons, near Rochester, N. Y., has solved equally well the problem of the photography or waves originating in the brain. The photographic apparatus provided with plates

¹"Les photographies de la pensée," *Annales des Sciences Psychiques*, 1906, p. 125 (from the *Chicago Tribune*).

was closed and placed on a table. Each person known to be able to exert supersensitive powers—which are usually latent—placed one hand about four inches above the plate with the other hand under the plate and table. Everyone was requested to concentrate his or her thought on an object which was specified. When developed the plate exhibited the object the experimentalists had thought of.”¹ Moldings in paraffin, clay or loam, have been secured through Eusapia Palladino. In the book (quoted) of Albert de Rochas, will be found the photograph of a print of fingers and a print of a face made at a distance by this famous medium. Since 1875, as MacNab says, Aksakoff had taken moldings of the feet and hands of ghosts in one piece without patches.²

84. DISCUSSION.

Many of these cases are in fact disquieting and rather hard to explain. Still I do not believe that any of them is of such an order as to produce scientific conviction.

a. Hallucination.

I shall not insist upon the objection to hallucination. Although there are hallucinations that have been simultaneously experienced by several people, such explanations can be applied only to experimentalists operating alone (this is an exception), or to investigators not much used to scientific researches. Such an objection may be raised in cases like that of Tweedale, cited above and about which Flammarion writes: “An illusion, or hallucination, of three onlookers, independent of each other, is hardly allowable.

¹Baraduc has recently said in *Le Matin* (“Le Grand Doute, Photographie des âmes”) that he had taken a photograph of the soul, and the double, or astral body, of his wife and son, at the moment of their death.

²*Vide* also on this matter, Surbled, *loc. cit.*, p. 65.

But is it impossible? Have we no right to imagine that the family was anxious as to the grandmother's health, and that three of them had been able to dream of her, and had subsequently the same hallucination?"

Likewise concerning the instance of "transfiguration" also quoted above, according to Maxwell, who, however, had not observed it himself. On a certain evening a young lady was seated on an armchair opposite her father, who was slumbering by the fire. She looked at him and gradually saw his face altered into the features of her mother (who died three years before). "I should perhaps not have ascribed much importance to this apparition," said she, "and I should very likely have considered it an hallucination if, while it was happening, my father's servant had not entered the room and perceived it as well as I did. When she came I only said to her: 'Jane, look how soundly father is sleeping!' She came near me and exclaimed: 'Oh! he quite looks like poor Madame! It is striking! It is absolutely wonderful!' Is it impossible to suppose that a more or less accurate likeness, caused by the semi-darkness and increased by the imagination of two women, as well as by their faithful remembrance of the deceased lady, was enough to lead the servant to such an exclamation, and the young lady to an hallucination of this order?"

b. Conscious, or Unconscious Fraud.

The main objection remains: that of fraud—either conscious or unconscious (but more frequently conscious). Cheating has not been verified in all cases, but it has been observed in so many instances that it has become a cause of disrepute and suspicion for all others.¹

a. Photographs and Moldings.

As to photographs, fraud has been verified in the first

¹See above (chapter II, ii, 12).

period, namely in the case of Mumler in America and of Buguet in Paris. An action was brought against both on account of this.

Guébbard imprest plates by means of an artificial finger made of rubber and filled up with sand, water or granulated metal, and thus imitated the action of human effluvia, and showed that errors are possible in case the "revealer" has not been shaken.¹

As regards Commandant Darget's plaindealing, there is no doubt; it cannot be questioned. But has not a definite cause of error been insinuated there? Referring to Dr. Le Veeder's experiments quoted above, *Les Annales des Sciences Psychiques* asserts: "In fact, those results as proclaimed by an American newspaper as a momentous question of the hour, would seem to be obsolete—at least in the opinion of some French occultists or spirit-believers, who cite photographs of the same kind, taken by Commandant Darget and other experimentalists. *Still, the many investigators who have attempted to repeat these experiments have failed to succeed as yet.*"²

In the letter sent me, together with the photographs above referred to, Commandant Darget wrote: "You may say that phenomena cannot, unfortunately, be repeated at pleasure. This is true. I have made more than 3,000 photos within twelve years, and even in placing myself in the same conditions during the same space of time, I have never obtained two photographs absolutely alike. The human fluid is as whimsical as electricity." We might even say, a little more whimsical.

In his work quoted above on spiritualistic photographs, Albert de Rochas writes: "Unluckily photographs may be tampered with, and it is certain that Buguet was given to

¹Vide Surbled, "Spirites et Médioms," pp. 52, 59 et seq.

²I am myself underlining this.—AUTHOR.

such cheating in order to draw customers." In the special case which he relates according to M. B., he adds: "It has sometimes been asserted against phenomena of this order, that individuals considered as spirits or astral doubles, were caused by casual images, due to small holes in the case of the apparatus. Such might be the case in the plate 3, in which an old lady's face is repeated on her right side."¹

The same author² has recently related how suspicion occurred to his mind (and how it was subsequently confirmed) as to the scientific reality of some photographs of human effluvia (or astral bodies), made with M. de Jodko (who had also made experiments with Monsignor Méric).

De Rochas discreetly took advice of Paul Nadar.³ M. Nadar, in investigating the photographs I showed him, got a clear idea of the trick used in order to get analogous results. He covered one of his helpers with a large white cloth and took a photograph of him in a very short sitting and a dim light. He thus imprest very slightly a plate, which he left in its frame. Then he requested me to sit, in my turn, and used this plate during the normal time of sitting. Thus he obtained the plate 8. The experiment was successfully repeated on several occasions. From that time I knew to what extent I could trust M. de Jodko's plates."

As to Eusapia's prints, Surbled says: "The two first experiments lead to the opinion that she has herself made the print of her fingers on the cement, and the last does not prove that she had no part in it.

¹Vide in Jules Bois, p. 33, the story of a ghost photograph on which he says: "We are more surprised than convinced, after this exceptional adventure."

²Albert de Rochas, "Mes expériences avec M. de Jodko, en 1896, où commence la fraude?" *Annales des Sciences Psychiques*, 1908, p. 9.

³A well-known photographer in Paris (Translator's note).

β. *Luminous Phenomena.*

The darkness that is obviously necessary for luminous phenomena, and the closet with its curtain, indispensable in materialization séances, are a cause of suspicion whose value is not much lessened by the *Revue Spirite* when it observes that photographers cannot dispense with a dark room, and that from the moment of conception the vital principle needs the darkness of the maternal womb in order to spread out.¹

Maxwell says: "Luminous phenomena admit easily of cheating; phosphorated oil and certain sulphurets² enable one to imitate hands or shapes." A phosphoric odor is frequently observed in those experiments. Some authors, however, have rather smelt ozone. *(See 1)*

γ. *Ghosts.*

1. *Tricks.*

I have already mentioned various examples of tricks used by certain mediums in order to imitate ghosts: namely, Ebstein, who made a ghost with a hamper daubed with luminous paint, and Charles Eldred, who kept a whole train of beards, white silk, electric lamps, etc., in a hidden compartment of his chair. Maxwell writes: "I know of a photograph taken during a séance by the light of magnesium. The medium had a false beard and a white towel around his neck so as to make a sort of vestment. Persons who were present at this séance, did not believe they were deceived. One of them who was my friend takes a great interest in psychical matters, but his good faith prevented

¹Jean Rouxel, article in the *Revue Spirite*, quoted by the *Echo du Merveilleux*, 1906, p. 140.

²I have already mentioned the medium Valentine, who produced luminous phenomena. She used to take off her boots, and shake in every direction her feet, which had previously been impregnated with phosphorus.

him from suspecting fraud. He would not agree with me concerning this photograph. It was necessary that Papus, the well-known occultist, should ratify my opinion. As to contacts, everyone knows how easy it is to counterfeit them in the darkness and how important is the part played by disguise, dolls, or pals in materializing séances. The imagination of swindlers is never at a loss.”

2. *Spirit-grabbers.*

Many a time suspicious experimentalists have tried to seize ghosts in their arms and hold them strongly until the light was turned on and their identity verified. Such experiments, which are quite rational, have not been made as often as necessary, because a belief has been promulgated that those spirit-grabbers were grievously hurting the medium and were even running the risk of killing him.

Up to the present the fame of ghosts has been destroyed only when experimentalists have used this violent method. I have related above the case of Craddock, who was seized by Lieut. Col. Mark Matthew while he was playing the part of a ghost, and the story of Mrs. Williams who counterfeited an apparition by means of a wig, a false beard and black fleshings, while her left hand held a mask to which a long veil was fixt. In these cases the medium's eheating has been found out by the daring of the experimentalist. Sometimes the medium succeeds in escaping. Such a misfortune occurred to Montorgueil in an experiment made at Mac Nab's house (vide ^{see} same part, 83 b). The following story of Archdeacon Colley is so instructive as to phenomena of this sort that I think it appropriate to give here the whole paragraph together with the author's comment:¹

“Those who allow themselves to seize abruptly a materialized shape—the spirit-grabbers—understand abso-

¹Work cited by the *Annales des Sciences Psychiques*, 1906, p. 31.

lutely nothing of occult truth when, after having taken hold of the clothes of a materialized ghost, they find in their hands only a white cloth or a fragment of muslin, and inside it the medium, who is quite out of countenance. Of course, he is rather rudely dealt with and every one thinks him a cheat. A closer knowledge of this psychical chemico-material making of a vestment would alter our not very charitable opinion concerning spiritualistic drapery, when, in our ignorance, we are suspecting the reality of those phenomena. In fact, in a séance by daylight (February 18, 1878), we decided to make a dangerous experiment. I was to take hold of the Egyptian—although he was attired in white, and attempt to prevent him from sinking into the body of the medium (who was then under Samuel's influence). What occurred to me at this moment has always caused me to think of St. Paul's words: 'in the body, or without it, I cannot say, God knows' (II Cor. XII, 3). It seems to me that an irresistible force lifted me up and immediately I was thrown down at a distance of about six yards, i. e. from the door of my drawing-room to the place where the medium was standing.

"I found suddenly in my arms the medium, who had a piece of white muslin over his frock coat. I held him in my arms, as I had thought to hold the Mahédi. The materialized shape had disappeared, and the psychical vestment which had got clear with it on the left of my friend, had most likely taken the same way to the invisible with the suddenness of thought. But where did the stuff now covering my friend come from, since it was not there a moment earlier? The shock of our collision—for it was a collision, as I have related in my diary, a downfall, a shaking—removed from us the wish to repeat the experiment which had nearly killed us. The mystery of the clothes still remains unsolved."

One may assert that Providence favored this medium, who did not die from the experiment, but met with an investigator whose strong faith produced a feeling of inexhaustible charity.¹

3. *Experiments at the Villa Carmen.*

I cannot help mentioning the case from the Villa Carmen, which has been so much debated of late, and in which it seems that the value of the experimentalists and all the precautions they had taken ought to have rendered deceit and cheating quite impossible. Charles Richet² gave information in November, 1905, after much hesitation, of experiments made during August of the same year at the Villa Carmen, near Algiers, at the house of General and Mme. Noël, with Mlle. Marthe B. as medium.

The phantom, B. B., or Bien-Boa, which he repeatedly saw, is neither an image reflected by a mirror, nor a doll,

¹Vide also, "Le défi de l'Archidiacre Colley au prestidigitateur Maskelyne," *Annales des Sciences Psychiques*, 1906, p. 714; and "Le prestidigitateur Maskelyne et ses démasquements," *Ibid.*, 1907, p. 127. Vide further (Part III, chapter XI, ii, 88, a. β. 5th), "Experiments made by the Italian scientists with the medium Zuccarini."

²Charles Richet, "De quelques phénomènes dits de matérialisation" (avec 6 photographies), *Annales des Sciences Psychiques*, 1905, p. 649; Oliver Lodge, "Sur les photographies algériennes du professeur Richet," *ibid.*, p. 713; Mademoiselle X., "A propos des récentes expériences d'Alger," *ibid.*, p. 724; C. de Vesme, "L'œuvre des amateurs et l'œuvre des savants," *ibid.*, 1906, p. 1; X. and Y., "Les séances de matérialisation de la villa Carmen (Comptes rendus des deux autres expérimentateurs, avec plusieurs figures)," *ibid.*, p. 65; "Une lettre du général Noël," *ibid.*, p. 103; Charles Richet and C. de Vesme, "Les polémiques au sujet des séances de la villa Carmen," *ibid.*, p. 129; Maxwell, "Les séances de la villa Carmen et leurs critiques," *ibid.*, p. 197; "Les dernières séances de la villa Carmen," *ibid.*, p. 252; De-créquy, "Les phénomènes de la villa Carmen en 1902 et 1903," *ibid.*, p. 335; Bormann, Peter, Richet and Deinhard, "L'hypothèse du peintre G. von Max sur les vêtements de B. B. (avec 2 gravures hors texte)," *ibid.*, p. 348. Vide also, Marsault, "Mon témoignage concernant Bien Boa," *Nouveaux horizons*, November, 1906.

nor a hamper. He "enjoyed all the attributes of life. I have seen him come out of the closet, walk, pace the room up and down. I have heard the noise of his steps, his breathing, his voice. I have touched his hand several times. It was soft, articulate and lively. B. B. blows through a pipe on water of baryta, and as bystanders exclaim: 'well done,' the ghost appears again and bows to us three times. It was repeatedly photographed during the sudden deflagration of a mixture of chlorate of potash and of magnesium. Since February, 1902, the same fantom has appeared many a time with other mediums."

Charles Richet, who had, of course, taken all the precautions of a well-informed experimentalist, and who himself made the most minute investigations before and after every séance, debates all the hypotheses before admitting such extraordinary facts, and declares that: "up to now experimentalists have not produced a strong conviction as to the reality of phenomena." He concludes that the main point is to know whether there has been fraud or not. Unfortunately, it seems that there has been fraud, or at least proof has not been afforded that the manifestator was free from cheating.¹

According to the works of Dr. Rouby in Algiers, *Les Nouvelles*, of Dr. Valentin in Paris, *la Vie Normale*, of the painter von Max, at Leipzig, *Psychische Studien*, it seems that fraud had been voluntarily practised in many experiments anterior to those of Richet,² namely, with the Arabian driver

¹Vide Valentin, "La métapsychique et la psychologie positive"; "Lettre ouverte au Dr. Charles Richet"; "Apparitions et mystifications, les fantômes de la Villa Carmen; Dans quel esprit je désire aborder l'étude des esprits."

²In reference to experiments anterior to those of Richet, I have received the following letter from Dr. Decréquy (the author of letters to Richet, given out by the *Annales des Sciences Psychiques*, 1906, p. 335): ". . . I was in Algiers at that time. I have followed for five years the

Areski; and in Richet's experiments there has been fraud, either conscious or unconscious, on the medium's part, at least in a sufficient number of séances to enable us to trust others no longer.

In spite of the rather disheartening conclusions which we have to come to, I think we must tender our best thanks to Charles Richet for his narration of this case, and for having provoked such a controversy. In this respect I utterly agree with Flournoy¹ who writes: "I am of opinion that,

experiments at the Villa Carmen. I never cheated there, neither did any physician. Dr. Denis witnessed the séances during three months; it was the epoch when the medium Vincente Garcia had apparently lost his mediumistic powers. As he could see nothing, he remained unbelieving. After that I ceased being present at the séances—the experienced medium having been replaced by another who had up to that time obtained no results whatever—as I did not want to waste my time. Dr. Denis stayed a few more weeks. An apparition took place on a day when he had missed the séance. Dr. Denis has never cheated. He only put himself in the wrong by witnessing a practical joke, made by M. H., who, seeing nothing occur, tried to have a good time, and decided to learn by heart an English sentence so as to make Mme. Noël believe that he was a medium. I was not there. As to the phenomena I am going to relate in the *Revue des Sciences Psychiques*, in order to answer the charge of cheating brought against me, they happened in the absence of Dr. Denis, of M. H. and Areski, who was not one of General Noël's servants at the time when I witnessed séances. Some trustworthy friends and myself have verified the phenomena, and caused Prof. Richet to come to Algiers. When Prof. Richet arrived, I was there no longer. There was another medium than Vincente Garcia, but I shall have to deal only with facts which took place with Vincente Garcia" (Nov. 8, 1906).

¹Flournoy, *Archives de psychologie*, 1906.

"Our great Italian poet," as Cesare Lombroso wrote, "Dante, said, a few centuries ago, with the somewhat impudent skepticism of La Fontaine:

'Sempre a quel ver ch'ha faccia di menzogna
Dee l'uom chiuder le labbra quanto ei puote
Pero che senza colpa fa vergogna.'

We should conceal, as much as possible, those truths which resemble lies, because they wrong us, without our being responsible for them."

far from reproaching M. Richet with his publication, we must be thankful to him who, being the head of one of the most prominent professorships in the civilized world, has had the heart to investigate a range of phenomena whose reputation is as bad as that of occult phenomena, and this, without having foregone conclusions, at the risk of imperiling, not science, which is in no danger whatever, but his own personal character, his official prestige as well as his authority among his colleagues and at the same time among the best class of the public."

As far as I am concerned, I have never felt regret that I presided in 1893 at the Faculty of Montpellier over the endorsement of Albert Coste's thesis, "On psychical occult phenomena," although this fact was at that time—I should not say a revolution, but an innovation in the university. Neither do I repent that I have made known the experiment in clairvoyance I shall further speak of.¹

Therefore, we must be glad that Charles Richet has publicly dealt with this case. But we should infer from the contradictory works written on that point that it does not afford the so much longed-for scientific proof of materializations. Besides, since Charles Richet himself has told us in the same work that, previous to Bien-Boa, those ghost apparitions had not been verified, we are bound to think that such proof is not established as yet, unless Miller's recent experiments afford it to us.

4. *Miller's Recent Experiments.*²

I have already mentioned the medium Miller. But since publishing the works there dealt with in reference to the

¹Chapter XI, iii.

²Gaston Méry, "Nouvelles expériences de matérialisation. Le médium Miller. Ce que j'ai vu. Ce que je crois," *L'Echo du Mercilleux*, 1906, pp. 381, 401, 421 and 441; Charles and Ellen Letort, "Nouvelles

frauds of mediums, Miller has made new experiments in Paris.¹ Papus asserted that they would make a great noise in Europe. C. de Vesme writes: "In case Mr. Miller's experiments are genuine, they are beyond compare in the realm of metapsychism. Here, it would not be one human shape only which would be laboriously materialized, as those of Katie King and B. B. used to be; apparitions follow one another, and are not always the same; they run backwards and forwards; they come into contact with bystanders; they are speaking and even singing. While some of those phenomena are occurring the medium is not in the closet. In short, as Papus, an experimentalist well used to such matters, has said 'the other mediums are novices in comparison with Miller.' He went so far as to declare that with mediums of his power spiritualistic ideas would be speedily improving."

Gaston Méry made a report and critique on the most recent of those experiments² which are obviously very queer, but do not provoke as yet scientific evidence of the reality of materializations.

séances de Miller," *ibid.*, pp. 385, 406, 425, 446 and 463; C. de Vesme, "Nouvelles séances de Miller à Paris," *Annales des Sciences Psychiques*, 1906, p. 696, and "Toujours la polémique sur Miller." "Lettres de G. Delanne et Ch. Letort. Réponse de C. de Vesme," *ibid.*, p. 756. *Vide* also, Jules Bouyer, "La Conférence Delanne (du 17 février 1907 sur Miller)," *Les nouveaux horizons de la science et de la pensée*, 1907, p. 85; de Vesme, "Un dernier mot sur Miller," *Annales des Sciences Psychiques*, 1907, p. 35; M. Delanne and M. Miller, *ibid.*, p. 128; *Echo du Merveilleux*, 1907, p. 69.

¹Before setting off again to America, and after a journey in Germany, in which he had given at Munich, "only one séance at Mme. Rufina Nøggerath's," the granny of the Paris spirit-believers who was at that time in the chief city of Bavaria, with relatives of hers," and died recently.

²Those séances occurred on October 5, 1906, at M. Letort's, on October 11 at Gaston Méry's, and two others, on the same day, at Mlle. Gourson's and Mme. Nøggerath's.

The first conclusion of Gaston Méry's investigation is that there is no proof of a demoniac influence, or of a survival. He then states the following objections to the reality of these phenomena: "I had the impression that all was managed by a clever impresario. The interest of onlookers was graduated regularly as at a theatrical performance; it is possible to ascribe the faith to the medium's training; no sign of weariness whatever was visible later on." It seems that the medium had only a limited number of apparitions at his disposal; they bore different Christian names or were hesitating as to their surnames (in case they were not absolutely ignorant of them). One may wonder whether the fact of striking up songs between apparitions is not intended to annihilate the noise made by the preparations. It is openly asserted that a "chain" is made up in order to contribute to the condensation of fluids. But is it not formed for another secret purpose, especially since its necessity lasts only while shapes come out of the closet and draw near the bystanders? Is it not to prevent inquisitive people from taking hold of the floating woolen cloths or even of the hands of the apparitions? The various auditory sensations that have been experienced might perhaps be emitted by a skilful ventriloquist?

One may infer from all this that to any unbiased witness these phenomena have not afforded a sensation of obviousness. None of the shapes that have been produced in our presence "has given any proof whatever as to its identity. It seemed that they wavered as to the words they should utter or that they tried to catch words on bystanders lips. They looked to be in want of help from the onlookers concerning the choice of personalities which they were to embody. None of the numerous apparitions which came forward disclosed a fact unknown to the medium. Among fantoms those that were very precise were always imper-

sonating individuals whom the bystanders did not know; on the contrary, vague were the apparitions that personified well-known people."

Therefore, in case they are neither demons nor reincarnated spirits, "there is only one possible explanation; it is Miller, who is speaking and acting through the 'spirits.' In order to infer tricks from all this there is only a step. Gaston Méry declines to take it. But I imagine that many of us will, and that they will conclude with C. de Vesme, who has very shrewdly undertaken a critique as follows: "The séances given in Paris by M. Miller are of the same value as those he made in San Francisco. The same *statu quo ante* is still left in the dominion of metaphysical researches. In the opinion of those who take a serious interest in metaphysical researches, the Paris séances are of exactly the same scientific importance as those made in San Francisco, i. e. something dreadfully similar to nothing. They have been 'drawing-room experiments,' and not tests made by well-known scientists. Believers and unbelievers have witnessed them; the public succeeded each other as at the theater. People of every description were granted admittance, provided they were able to procure a letter of introduction. Now, no one will induce me to believe that at such séances, always made among ill-matched elements, Mr. Miller and his 'controls' were able to obtain their phenomena when they failed to produce them before an audience consisting exclusively of scientists perfectly acquainted with metaphysical matters, and above any suspicion of hostility to mediums, since they have already made investigations with Eusapia Palladino, Politi, etc."

The recent experiments of Miller in Paris, no more than those made at the Villa Carmen, are of such an order as to establish in a scientific manner the reality of materializa-

tions and of fantom apparitions. Therefore, I adhere in this summary to my conclusions in preceding sections: *First*, the scientific demonstration of materializations has not been made as yet. *Second*, it seems that the subject is not even ripe for an actual scientific survey.

CHAPTER XI

FACTS WHOSE SCIENTIFIC DEMONSTRATION DOES NOT APPEAR SO DISTANT, BUT MUST BE AT FIRST SOUGHT FOR

I. MENTAL SUGGESTION AND DIRECT COMMUNICATION OF THOUGHT.

85. *Definition; documents and cases.*

- a. How the question stands.
- b. Recent cases.
- c. D'Ardenne; Pax; Paul Sollier.
- d. Lombroso.
- e. Joseph Venzano.
- f. Miss Hermione Ramsden.
- g. Kotik.

86. *Why experimentation is sometimes erroneous; tricks.*

87. *How to establish scientific proof of mental suggestion.*

II. REMOVAL OF THINGS WITHOUT TOUCH (LEVITATION). RAPS.

88. *Removals without touch.*

a. Instances.

a. Haunted houses.

β. Removal of things.

- 1. Eusapia Palladino.
- 2. William Crookes and MacNab.
- 3. Maxwell.
- 4. Flammarion.
- 5. Zuccarini.

a. Discussion.

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89. *Raps.*

- a. Cases.
- b. Discussion.
- c. Conclusion.

III. CLAIRVOYANCE.

90. *Definitions clairvoyants and female seers.*

- a. Definitions.
- b. The female seer of St. Quentin.

91. *Cases and discussion.*

- a. A few cases.
- b. Personal instances.
- c. Conclusions. Rules for further experiments.

I. MENTAL SUGGESTION AND DIRECT
THOUGHT TRANSFERENCE

85. DEFINITION—DOCUMENTS AND CASES.

a. *How the Question Stands.*

Mental suggestion is a direct transference of the thought of a subject to another person without a word or a gesture, and without any of the usual ways of psychical communication. It is an exteriorization of thought by a new way. It is "willing game" without contact.

It is easy to perceive the resemblances, as well as the differences, existing between mental suggestion and telepathy. Telepathy is also a thought transference, but it is a transference at a long distance, whilst in mental suggestion, both subjects are quite near each other. Besides (and this is more important) in mental suggestion the transmitting subject is active; he does not interfere in telepathy. This is so important that we shall see cases in which mental suggestion is practised at a more or less great distance, although it does not become telepathy because the psychical effort is made by the suggesting subject.¹

"We may declare," writes Venzano,² "that the phenomenon of thought transference has unreservedly entered the scientific dominion." In fact, many persons believe that mental suggestion is established in a scientific way, and that,

¹There is in mental suggestion what Jules Bois terms "téléboulia." It is missing in telepathy.

²Dr. Joseph Venzano, "Des phénomènes de transmission de la pensée en rapport avec la médianité," *Annales des Sciences Psychiques*, 1905, p. 672.

for instance, to a subject induced to an artificial sleep in provoked hypnosis, the hypnotizer may suggest an idea, without talking to him; without using any of the usual modes of communication between both psychisms. On the contrary, I think that scientific evidence of mental suggestion has not been obtained as yet.

Charles Richet writes in Ochorowicz's¹ book: "I do not mean that mental suggestion is strictly verified. Most certainly not. Although M. Ochorowicz and others before him have gathered evidences, they do not lead to an entire and irrefutable belief, but only to presumptions."

Since that time (1887) many have imagined that they had found this demonstration. But in spite of the experiments made by Liébeault and Beaunis, by Boirac,² Paul Joire, Fotherby, in spite also of the documents included in Géraud Bonnet's³ book, I do not think that anyone has ever succeeded.

Once I imagined I had arrived at this demonstration with an hysteric in my ward. I even entered my name for a report on mental suggestion at a congress which was held a few months later. But afterwards a course of failures showed me that the previous successful experiments were not sufficient to establish the scientific demonstration of the matter and put off my relation, *sine die*. Bernheim and Pitres, like Charcot formerly, have never positively demonstrated mental suggestion.

¹Ochorowicz. "De la suggestion mentale," avec une Préface de Charles Richet, 1887.

²In "La Psychologie inconnue," pp. 161, 218 and 268, Boirac says: "As far as I am concerned, I have always failed in my attempts to suggest a definite idea to my subjects, though I have tried it many a time, and I have been able to cause them to sleep or to awake, by a mere effort of will; and I have never noticed that any of them could ever spontaneously guess thoughts or intentions I had not expressed."

³Géraud Bonnet, "Transmission de pensée," 1906.

b. Recent Cases.

a. My comrade, Dr. D'Ardenne,¹ on my advice, published the very queer case of a hysteric woman with whom he has made satisfactory experiments in attraction, by laying his hands on her, without contact, and by keeping a fixt stare, always behind the subject. Pax² has given out analogous experiments.

The main objection to this mode of operating is the use of gestures by the experimentalist. We are never sure that the 'subject does not perceive them, either through sight when his eyes are closed and if the experimentalist is in front of him, or through hearing or a displacement of air if the investigator is behind him. "It may be said," writes Pax, "that the medium asleep has constantly kept the eyes closed; she has certainly not cheated either consciously or unconsciously, but I am not sure enough that there has been no unconscious perception, as in 'willing game' without contact."

It may be of interest to compare with these cases the observation published by Paul Sollier³ (cases verified with Duhem and Boissier). The patient being busy and having turned her back on him, Sollier made a sign with his hand stretched out and then brought back as if he were pulling her. Immediately the patient left off her work, turned and came straight to the doctor. The experiment was successfully repeated at a distance of four meters with an interposed curtain. Another time the study of the experiment-

¹D'Ardenne, "L'attraction à distance sans parole ni contact," *Annales des Sciences Psychiques*, 1903, p. 193.

²Pax, "Expériences d'attractions à distances, sans paroles ni contact, sur des sujets à l'état de veille," *L'Echo du Merveilleux*, 1906, pp. 257 and 276.

³Paul Sollier, "Phénomènes de perception à distance," *Bulletin de l'Institut général psychologique*, 1904, t. IV, p. 509; and *Annales des Sciences Psychiques*, 1905, p. 178.

alist was separated from the laboratory where the patient was, by a passage which was five meters in width, and by a wall forty centimeters thick, preceded by a small passage leading to a hall closed by a glass door."

"There is in it," as Sollier adds, "no phenomenon of divination or intuition, or of a direct thought transference with the hypnotizer, and the proof of it is that other experimentalists have not only obtained at once the same result, but also that her movement was caused by the impression she got, or rather by the gesture of the experimentalist, and not by his thought." Therefore, it seems that a peculiar acuteness of sensibility was the cause and that auditory sensations were not concerned. In experiments at a short distance it is possible to believe that the impression is caused by the displacement of air. But in tests with a wall interposed the explanation is difficult to express. "I am led to suppose," says Sollier, "that either the spread of the vibrations given to air occurs through obstacles which were, till now, deemed insuperable, or vibrations of an unknown order were the causes."¹

¹Dr. Boissier, from whom I had asked for a continuation of this strange case, has been kind enough to answer me: "There have been no fresh experiments—either published or unpublished—as regards the case we observed with Sollier in 1904. The subject was a patient whom you well know, since you recommended her to us. She was a great hysteriotraumatic. She offered those phenomena during a rather short space of time, at a precise stage of the evolution of her progressive awakening. Scarcely a few weeks out of the fourteen months were involved in her coming back to complete waking. I was present and was engaged with the subject, at a moment when, merely by accident, we detected the phenomenon. We have closely observed it, and taken notice of it until its disappearance, which was definitive a few days later. We made vain attempts to repeat it, with the same patient, during the following stages of her treatment. I subsequently tried to find it out with two other female patients, at the same period of their retrogression, but failed. With regard to D., we have investigated her case, on a favorable occasion, with the greatest care and accuracy, and with all the self-diffidence

β. Lombroso¹ has made with Pickmann, in his laboratory, his first experiments in thought transference, together with Drs. Roncorini and Ottolengui and the barrister Zerboglio. "The most frequent experiment was to hold out from ten to twenty times, five or six playing cards or tickets bearing numbers. They were held out upside down so as to prevent him from seeing the inscription on them. Some one marked down how often the subject succeeded in guessing the card or ticket chosen mentally by one of us. With various subjects we noted from none to 10, 12, 40 and even 44 successful attempts out of 100."

Once, Lombroso wrote "Pickerel" on a slate. "M. Régis being in a condition of 'monoideism,' with a bandage on his eyes and ears, at a distance of more than ten meters from me, wrote the word 'Pitche' on another slate. He was enjoined (by a note placed under a sealed envelope) to kneel down and pray. He placed the envelope between the palms of his hands in an attitude of prayer, but knelt down only when it had been observed to him that he did not comply at all with the order given. With cards he was successful only twice out of sixteen times. More queer and better carried out were the experiments of M. E. B. of Nocera, a hysteric and a somnambulist, a typographer by trade. Once, as he was in a condition of somnambulism, he set up a whole page without any wrong letter."

If they have not led to definitive conclusions, those investigations of Lombroso are at least instances of simple and well carried-out experiments which ought to be imitated.

we were capable of, and the incidents, in spite of the strictest control, occurred, such as you have heard them related."

¹César Lombroso, "Mon enquête sur la transmission de la pensée," *Annales des Sciences Psychiques*, 1904, p. 257. *Vide* also, Ernest Bozzano, "César Lombroso et la psychologie supernormale," *ibidem*, 1906, p. 397.

γ. Joseph Venzano¹ has made experimentations far more complex. He made tests with various mediums, mostly with Eusapia Palladino. Owing to mental suggestion, the table² was made to give a certain number of knockings so as to warn one of the bystanders that it was time for him to take the train, or a fan was seen that moved and touched the shoulder of one of the experimentalists. A penny was taken out of someone's pocket and given to another person.

Venzano infers from his experiments that "the reality of the phenomenon of thought transference shines out in the most luminous and convincing manner, owing to the instances related, which have been selected from among many others whose importance is not inferior. These cases may unreservedly undergo the examination of criticism."

I think that such conclusions are somewhat premature, and do not agree, for the present, with the author, who adds: "The conscientious censurer has merely to lay down his arms." I must state the reason why such is not my opinion. Those experiments are too complex to admit of the strict control necessary to a scientific survey; the things thought and performed are too vague; they are usual enough to have a chance to occur throughout a séance in which many other things (which have not been mentally suggested) are also performed. Besides, and I deem this quite important, the accuracy of orders fulfilled is verified after the act only. There is no proof at all that the plaindealing experimentalist's thought has not been influenced by the act the medium was performing. Under certain circumstances it happens

¹Joseph Venzano, work quoted by the *Annales des Sciences Psychiques*, 1905, p. 672.

²"MacNab (*Echo du Merveilleux*, 1906, p. 136), has been able, as he was alone with a medium, M. Ch., and without making a sign, to stop or begin again, or regulate at his pleasure, knockings that were due to his mediumship."

that the investigator does not first recognize his thought in the medium's act, or detects it after due reflection owing to rather complex ratiocinations. The medium surpasses and exceeds sometimes the experimentalist's intention. In the course of a complex séance implying multiplied manifestations it will be now and then found that a mere embryo of thought on the experimentalist's part has been fulfilled.

All this enables me to believe that such experiments afford no scientific evidence of mental suggestion.

8. According to the definition stated above, the experiments referred to in Miss Hermione Ramsden's¹ work are mental suggestions rather than telepathy, although there is a long distance between both experimentalists, since the subject transmitting thought is really playing an active part; this is mental suggestion at a great distance.²

The author describes quite frankly a series of failures, or at least of semi-success (which are not sufficient for inducing in us absolute belief), with a friend at Christiania and another at Newmarket. The experiments made with Miss Clarissa Miles are more queer; but they are generally too complex and not precise enough. They ought to have been more strictly limited; the thought fulfilled was lost among so many others that the attempt might have been successful if something else had been thought of. Thus, Miss Miles thinks of the word sphinx. Miss Ramsden (at a distance of about twenty miles) gets eight words, and among them the following: hour-glass, arm-socket, suspension bridge, sphinx,

¹Miss Hermione Ramsden, "Télépathic expérimentale," *Annales des Sciences Psychiques*, 1906, p. 272.

²The observation of magical charm ought to be included under this head; but it seems to me that the matter is not yet ready for a scientific investigation. *Vide* G. Phaneg, "Etude sur l'envoûtement. Conférence à la Société d'études psychiques de Nancy," *L'Echo du Merveilleux*, 1906, p. 74.

etc. She adds: "It is a word with an s, but I fail to catch it." At another time the former thought of a watch and the latter guessed an oval locket. The transmitting subject had thought of lockets in the forenoon.

Miss Miles selects as a topic of thought transference, "future life and any spiritual matter." Miss Ramsden thinks of a daisy, of a swan, of a masonic emblem between two triangles twisted, a pair of angel wings, a bridge, a lily. Miss Miles intends to make her see the face of Monaco Palace, Miss Ramsden thinks of a statue, or perhaps a fountain, or something else with water in it.

Here follows one of the most remarkable experiments. Miss Miles sees and tries to transfer "a sunset on a chapel." Miss Ramsden describes in this manner what she perceived: "At first it was the sun with its beams and a face that was peeping in through beams. Then I saw something which kept on turning like a wheel. Both things seemed to melt together, and I then thought of a windmill—a windmill on a hill where it was dark while the wind was raging. There were black clouds. Next it was the crucifixion; I perceived three crosses on the left side of the hill; they were facing the right side; it was dark, windy and stormy. I am sure it was like that. It was the most lively emotion I ever felt. I have hardly visualized these ideas; they were quite vague, but the suggestion was very lively."

We find here a train of many ideas, and among them is the sun, but no hint of sunset. There is also darkness and night. Crosses and a remembrance of Golgotha are mentioned without any idea of church or chapel. The author adds that Miss Miles saw a cross on the top of the church. There was a weathercock (which was subsequently found) on the horizon. It was windy; the sun was illuminating the face of MacNab, whose portrait she was painting. But the sky was orange-colored. In this instance thought transference

was so dim that Miss Ramsden believed Miss Miles had intended to show her a picture of the crucifixion.

I have found in this conscientious work only one interesting experiment. On October 27, 1906, at from four to six P. M. Miss Miles was thinking of the odd spectacles used by a gentleman seated by her side. At seven o'clock (Miss Miles being engaged in thoughts quite different) Miss Ramsden, who was expecting the coming of an impression, caught the thought of "spectacles." That was all. It is not enough to frame a scientific demonstration of mental suggestion.¹

ε. Kotik² has just published an interesting work on "immediate thought transference." He made his experiments with two persons: "Their lower psychism was in a condition of immediate receptivity regarding the psychophysical force of another agent. The transference—without the sense organs taking part in it—as well as the receipt of the psychophysical force emitted, occurs most likely in the lower psychism, but with a certain knowledge on the part of the agent's upper consciousness." The analysis of this book which I have read, refers much more to the theory of the phenomenon than to the experimental and scientific proof of its existence.

86. CAUSES OF ERRORS IN EXPERIMENTATION; TRICKS.

I should give the following advice to those wishing to make in the future experiments in this matter: Do not apply to a professional thought reader. Like many others,

¹I am not in a position to express an opinion concerning the case—which seems to be unlikely—of a man, at the same time blind, deaf and dumb, whose education could be secured by means of thought transference (*Annales des Sciences Psychiques*, 1906, p. 656).

²N. H. Kotik, "Immediate thought-transference" (in Russian), 1907. Analyzed by Elise Soukhanoff Pokotillo, *Revue de Psychiatrie*, 1908, p. 72.

I have made frequent attempts and have constantly failed, or at least I have never succeeded when the Barnum was not aware of my thought. Everyone knows that it is usual at fairs, or in some cafés, to see two persons practising "thought transference." The former makes his partner guess the number inscribed inside of watches, or the name of hatters printed inside of hats. The tricks are more or less clever and more or less understood; but they are still tricks in all cases.

Some jugglers ask questions in different words, according to the meaning of the answer wished for. Robert Houdin¹ operated in this way, by means of a book of questions, or rather of a special and conventional vocabulary known only to the subject and to himself, and which the public was absolutely ignorant of. He had trained his subject to answer the questions asked, and to guess, at a distance, either the sort, shape or color of an object, or the value, date and effigy of a gold or silver coin, or even the time indicated by a watch. For instance, if he said: "What do you see?" the subject was to answer, "a hat," or: "Tell me what you see," it was a stick, and so on. To each question corresponded an answer agreed upon in advance.

Other jugglers point out to their subjects the number to guess by means of the place in a certain term of the first letter of the words used in their question.

Thus with the word: 'W a s h i n g t o n' here follow a
1 2 3 4 5 6 7 8 9 0

few instances of questions and answers:

How much?—4.

What number do you see?—16.

What is the number?—158.

What is the number to guess?—158,687.

¹*Vide* Géraud Bonnet, *loc. cit.*, p. 94.

Some others manage to disclose the words, syllable by syllable. In this respect I remember a female seer who made too much haste in uttering the word "hippopotamus," whilst the bystander had said "Hippocrates." Hints are also given by gestures or attitudes.

Géraud Bonnet quotes another instance. "It was sufficient to whisper one's wish to the Barnum. Without moving, this man looked at the young lady, who was at a distance of five or six meters, and she immediately came forward and did what had been wished. There was a speechless dialogue between both performers, and this dialogue was made easier by the fact that the attention of the whole audience was engrossed by the subject, whilst it failed to heed the juggler, but in observing him it was possible to see that his positive attitude and movements were intentional and varied in every case according to the questions asked, although he looked to be almost motionless and inactive during the subject's action. There was a trick of gestures, but it was so cleverly concealed that the most skeptical among the onlookers were deceived. All such instances of thought transference are caused by tricks."¹

I have already quoted the queer experiments of Paul

¹Here is a novelette of direct thought transference. "An action brought by two music-hall artists—of those who guess the bystanders' thoughts, as well as the number of their watches—against one of their former employees, has disclosed pretty and diverting tricks. It appears that a telephone was especially set up in the upper galleries of the theater, and connected with the 'seer's' chair. A confederate kept the blindfolded lady on the stage, who seemed to be in hypnosis, constantly advised of what was occurring, and indicated to her the person concerned. Suddenly amidst a round of cheering on the part of the audience, the 'seer' exclaimed, 'This is a fair-haired lady, with a green bonnet, a ruby ring, etc.' Another trick was to have persons who were coming to hire a box for the evening performance, followed by a confederate. Thus an account of what they had done was given to them, to their extreme surprise." (*Le Petit Méridional*, December 30, 1906).

Sollier in this last element of sensory hyperesthesia. In the same way Dr. Laurent¹ has been so kind as to impart to me some amusing tests in which he surveyed and imitated those made by Pickmann.

Our colleague has been able to fulfil at a distance of about four meters orders given by certain persons—very simple orders, of course, such as the choice of an object on a table. He has very well investigated the matter and has come to the conclusion that there is hyperaesthesia on the subject's part, as well as perception of words unconsciously uttered by the transmitting agent—"on the left," "on the right," "yes," "no."²

Charles H. Pedley, the mayor of Crewe, has related to Prof. Lodge³ the case of a Barnum who made signs to his subject by lifting up his right toe; thence he made a slight movement of the shoe, which acute eyes were able to perceive, even at a distance of twenty yards, and with blind-folded persons.

Albert Bonjean,⁴ who in his book on "L'Hypnotisme" had detected the fraud of a female seer L., has recently disclosed the trick of another, B. de P.: "The mode of action employed by both is based on the same principle. To enable the seer to see it is necessary for the Barnum to know the thing or the thought to be guessed. Since the Barnum must be advised of the word or of the thing in question,

¹Laurent, "Les procédés des liseurs de pensée; Cumberlandisme sans contact." *Vide* also L. Laurent, "Des procédés des liseurs de pensée," *Journal de Psychologie normale et pathologique*, 1905, t. II, No. 6, p. 481.

²*Vide* also Alfred Graffé, professor of Psychology at the University of Liège, "Un nouveau liseur de pensée. Contribution à l'étude de l'hyperesthésie."

³Lodge, "Un truc dévoilé," *Annales des Sciences Psychiques*, 1899, p. 176.

⁴Albert Bonjean, "La transmission de la pensée," *L'Union libre de Viviers*, October 2, 4, 9 and 13, 1906.

there is no difficulty at all in imparting this thing or this word to the subject by means of a conventional alphabet or of a special language, which for the subject concerned assumes a precise and mathematical meaning. I know the tricks used. I am able to counterfeit, with my good friend and colleague Léon Mallar, he being the Barnum and myself the subject, all the phenomena obtained by Mme. de P."

Ernest J. A. Bodson has made to the same medium a proposal to write on a visiting card a number of five figures and to show it to the Barnum, who would only ask his subject: "What is the number written on the card?" The Barnum declined to do so.

87. RULES TO OBSERVE IN TRYING TO ESTABLISH A SCIENTIFIC DEMONSTRATION OF MENTAL SUGGESTION.

I infer from all that I have just stated that the scientific demonstration of mental suggestion and of thought transference by a new mode of action has not yet been made, but that there are experiments, like those of Lombroso and Charles Richet for instance, which indicate that the matter should not be given up, and that perhaps a solution will be arrived at in case the experimentation is carefully and methodically made, without professional thought readers, provided very simple experiments are first organized.

I remind those who may feel inclined to undertake investigations of this order, that it is necessary to have: *First*, a subject, for, if mental suggestion is real, it does not exist for and with anyone. A subject liable to hypnotism, a medium, is indispensable. *Second*, one should try very simple tests, without gestures or speech or grimaces; request a subject to lift up an arm, to open his mouth or take up his foot. *Third*, one should make many experiments and repeat them, and take note with great accuracy of all incidents.

It is even advisable to place previously in a well locked-up drawer the orders one is about to give; the bystanders, not very numerous, ought to be ignorant of them. All the acts of the subject must be recorded as soon as they occur, by a bystander who is not aware of the orders given. The comparison between both written statements will be subsequently made.

In case thought transference is to be really tried, it is necessary, with a group of a limited number of persons, knowing absolutely each other, and of an unquestionable good faith, to make the little experiment given below. It resembles a drawing-room game, and has, besides, been tried many a time by serious scientists.

The experimentalist shuffles a pack of cards. He then selects one card, thinks very intensely of it, and the witnesses (who do not know this) write down on a sheet of paper the card they are themselves thinking of at this moment. They do not impart their decisions to one another. The experimentalist takes a second card, and so on up to ten or twenty times at each séance. The cards are then taken up again and those that have come out are proclaimed aloud in the order in which they had been thought of, and every one marks down his or her successes, i. e. his or her coincidences. Experiments are repeated, and should any one succeed in reaching or even surpassing twenty or thirty per cent. of successful attempts, one should not boast of it. Subsequent experiments will be repeated and made more precise after the subject has been found out in this way.¹

¹M. l'Abbé P., of Aix-en-Provence, has just told about the queer experiments following: "It was always very easy for me to detect an object that had been hidden, and this even when blindfolded. Without seeing I felt that I was attracted by M. M. I was blindfolded, and M. M., when behind me, was intensely thinking of a movement he wished

II. REMOVALS OF OBJECTS WITHIN REACH, WITHOUT CONTACT; LEVITATION; RAPS

The facts dealt with in this paragraph are, with regard to objects brought from a long distance and to materializations, what the facts referred to in the preceding paragraph are with regard to telepathy. They are a reduction of them. As they are made simple, they should be first viewed in the scientific survey of this chapter.

88. REMOVALS WITHOUT CONTACT.

Under the head of removals of objects within reach without contact, I include the rotation of a table which nobody touches, the displacement of a piece of furniture in a room or even an apartment, the levitation of an object, the rising of the scale of a letter-weigher without any contact with the medium who is present.¹

a. Instances.

a. Haunted Houses.

The subject of haunted houses belongs to this paragraph. For, if we set aside practical jokes in this matter, which are quite common (such as the case of the stronghold of Vin-

me to make. In this instance I was to wheel to the right. I felt, positively felt, an influence that was taking hold of all the upper and middle part of my right shoulder, so as to make me wheel. It was a soft influence, analogous to that of a puff or to the influence of a magnet, which was exerted directly, not over my brain, but over my shoulder. When M. M. wished me to bend over, I had in my back the impression of an extraordinary weight. I was constantly at a distance of two meters from him. I thought I had a weight of fifty kg. I must tell you also that, during the same séance, I experienced influences which M. M. had no intention of exerting over me. . . ."

¹One might comprise in this group experiments dealing with attraction between persons at a distance, which I have mentioned above in the section devoted to Mental Suggestion.

cennes¹ for instance), there is always a medium in a haunted house. The point is always to know whether the medium touches the objects that are moving. I have carefully investigated a case² with Dr. Calmette (my assistant in clinical medicine, who is a regular member of the Faculty of Beyrouth) in which very queer removals were noticed, up to the day when a young hysterical girl, aged fifteen, was sent from the house to undergo treatment in my ward at St. Eloi Hospital, Montpellier.

Many instances of haunted houses will be found in Dupouy's³ book (from the time of Pliny the Younger to the haunted closet of Dr. Dariex) and also in special periodicals I have frequently mentioned. Lombroso⁴ has recently referred, in the *Annales*, to haunted houses he had investigated. I quote here an observation perfectly outlined by the professor, of a family in which occurred the extraordinary phenomena of the Strada Pescatori at Turin. "It was a quiet family of workers. Signor Pavarino was a healthy man, but his temper was strange. His wife, on the contrary, was hysteroepileptic and suffering from anemia. She paid frequent visits to so-called female medium healers. Her father had died from consumption contracted in war; her mother was scrofulous. She had a sister who was a medium, and gave birth to four children with supernumerary fingers. Our hysteric was then a girl of twenty-one, rickety, sickly and neuropathic. She frequently caused spontaneous removals of objects."⁵

¹Vide *L'Echo du Merveilleux*, 1906, p. 98; and *Les Annales des Sciences Psychiques*, 1906, p. 115.

²"Le Spiritisme devant la Science," p. 11.

³Dupouy, *loc. cit.*, p. 273.

⁴César Lombroso, "Les maisons hantées que j'ai étudiées," *Annales des Sciences Psychiques*, 1906, p. 258.

⁵Vide the observations of Karin by Hjalmar Wijk (I shall deal with it again in discussing raps), and "Maisons hantées en Angleterre et en

β. *Removals of Objects.*

In reference to the removals of objects, it is convenient to read the fine book devoted by Albert de Rochas to "the exteriorization of the motor force," a fourth edition of which quite recently appeared.¹

1. *Eusapia Palladino.*

Prof. Chiaia had already made a very accurate description of these phenomena when, in August, 1888, he wrote to Lombroso and requested him to make experiments with the new medium, Eusapia Palladino. "While she is fastened on a seat, or strongly held by onlookers, she exerts an attraction on the surrounding pieces of furniture; she raises them and holds them up like Mahomet's coffin: then she makes them come down with undulatory movements, as if this were due to the influence of an external will. She increases their weight or renders them lighter at her pleasure. She knocks and hammers walls, ceiling or flooring with rhythm and cadence. This woman ascends in the air in spite of her bonds; she remains there, and looks to be lying down in empty space, contradictory to all principles of statics. She is apparently free of the laws of gravity. She makes instruments of music, such as organs, bells, drums sound as if they had been touched by hands or shaken by the breathing of invisible gnomes."

It was only in 1891 that Lombroso agreed to witness experiments in Naples with Ciolfi. Experiments next took place at Milan (1892) with Aksakoff, Schiaparelli, Charles Richet, Lombroso, and others; at Naples (1893) with Wagner; at Rome (1893-94) with Siemiradski, Richet, de

France," *Annales des Sciences Psychiques*, 1907, p. 137; "Les maisons hantées," *Echo du Merveilleux*, 1907, pp. 53, 71, 154, 253 and 291.

¹Vide also Dr. Becour, "Histoire de fantômes, d'une femme et de cent savants," edition de la "Vie Nouvelle," 1906, and Surlbled, *loc. cit.*, p. 107.

Schrenck Notzing; at Warsaw with Ochorowicz; at Carqueiranne and Roubaud Island (1894) with Richet, Sidgwick, Lodge, Ochorowicz, Myers, de Schrenck Notzing and Ségard; at Naples (1895) with Visani Scozzi; at Cambridge (Eng.) with Myers; at the London Society for Psychical Researches; at l'Agnelas with de Rochas, Dariex, Maxwell, Sabatier and de Watteville; at Tremezzo, Auteuil and Choisy-Itrac (1896); at Naples, Paris, Montfort and Bordeaux (1897); at Genoa and Palermo (1901 and 1902); and finally in Rome and Paris (1905 and 1906) with Flammarion and Pierre Curie.

Because of the number and importance of these experiments, and also of the value of the experimentalists, it is well to know about Eusapia Palladino's case, as marked down by De Rochas.

Eusapia¹ was born in 1854. She is affected with hysteria and erotic inclinations, together with a slight palsy and a superficial hyperesthesia of the right half of her body. She frequently experiences the sensation of the globus hystericus. Her intelligence is remarkable but not much developed. It is unstable owing to fatal influences. Her temperament is changeable and irritable. She has an immoderate ambition, an appreciable intoxication due to her mediumistic fame, and great self-denial. This will give us a clear idea of this Italian woman's mental condition, which is a queer compound of sincerity and double-dealing. During her childhood she witnessed dreadful scenes (murders and thefts). At the age of eight years she had a tormenting hallucination at waking. Expressive eyes were looking at

¹Vide also Mlle. Paola Lombroso, "L'Existence privée du célèbre médium napolitain Eusapia Palladino," *Echo du Merveilleux*, 1907, p. 229; and César Lombroso, "Eusapia Palladino et ses tares névropathiques"; "Eusapia Palladino et le Spiritisme," *Annales des Sciences Psychiques*, 1908, p. 29.

her from behind a pile of stones or a tree, and always from the right.

The first mediumistic manifestations were coincident with the initial coming of her catamenia,¹ when she was about thirteen or fourteen years old.

The spiritualistic training of Eusapia, undertaken by a fervent believer, Signor Damiani, began when she was twenty-two or twenty-three years old. John King, who then took hold of her, is asserted to be the brother of Katie King, the medium of Crookes. She is liable to hypnotism. Her sensibility may be exteriorized (de Rochas) and it is possible to attract her by gestures without contact. One day, she acquired with contact, M. de Gramont's headache. She herself gets into trance when she takes part in the chain of hands. Her trances are very similar to fits of hysteria, after which she is quite exhausted and becomes nearly unconscious.

Here follows what she herself relates of her impressions when she wishes to cause a movement at a distance. At first she most earnestly wishes to produce the phenomena. She next feels a numbness and goose-flesh in her fingers. These sensations keep on increasing, and at the same time she experiences in the lower part of her spine a current which is speedily running through her arm, up to the elbow, where it ceases softly. The phenomenon happens at this moment. During and after the levitation of tables her knees are sore; during and after other phenomena her elbows and her whole arms give her pain.

Since my previous edition, new and noteworthy experi-

¹Dr. Laurent (*Annales des Sciences Psychiques*, 1897, p. 265) has surveyed curious mechanical phenomena provoked, without contact, by some woman, at the time of catamenia. The G of a gentleman's double-bass broke as often as his wife had her menses. A harpist had the strings of her instrument (always the same) broken at every cata-

ments have been made with Eusapia Palladino,¹ namely in Italy. The most recent instance, which has been much spoken of, is the registration by Marey of barrels of material removed by Eusapia without contact, at a distance. Thus was an instrument influenced and the oscillations of its arm registered. The facts are consequently unquestionable.

At this time it was declared that this marked a momentous improvement; it suppress in those experiments the subjective human factor and implied conclusions that would be henceforth unobjectionable. I do not think the idea is as new as it has been asserted to be. Some such phenomena had been registered already. But I acknowledge that at this time there was an improvement of technics, which led to giving to some of those phenomena the value of a new fact.

I shall observe (and this seems very important to me) that this improvement affects the least debatable and debated part of the experiment; the gross fact of a removal of an object. Nobody is denying that tables are lifted up, that some objects move. What is discussd is the way in which

menial period. A servant stopt the clock, when at the same time she was dusting it and the chimney; the latter was perhaps owing to a nervous excitation of the fingers.

¹Vide "Importantes expériences avec Eusapia Palladino à Gênes," *Annales des Sciences Psychiques*, 1907, p. 54; "Les dernières séances avec Eusapia Palladino à Gênes," *ibid.*, p. 152; Morselli, "Eusapia Palladino et la réalité des phénomènes médiumiques," *ibid.*, pp. 225 and 326; "Ce que le Professeur Foa, de l'Université de Turin, et trois docteurs, assistants du Professeur Mosso, ont constaté avec Eusapia Palladino," *ibid.*, p. 265; Pio Foa, "L'opinion publique et les phénomènes dits spirites," *ibid.*, p. 305; "Eusapiana," *ibid.*, p. 448; Joseph Venzano, "Contribution à l'étude des matérialisations," *ibid.*, pp. 473 and 572; Bottazzi, "Dans les régions inexplorées de la biologie humaine. Observations et expériences sur Eusapia Palladino," *ibid.*, pp. 553, 645, 681 and 749; César Lombroso, "Eusapia Palladino et le Spiritisme," *ibid.*, 1908, p. 29; G. A., "Expériences médianiques à l'Université de Naples, contrôlées au moyen d'instruments scientifiques," *Echo du Merveilleux*, 1907, p. 352.

those movements are produced. It is the intermediate agents between the subject and the object that appear to be very far from one another. What ought to be noted with registering apparatus, i. e. without any human and subjective factor, is the zone of air and ether between the whole subject and the object moved. Now, nothing has been done in experiments with Eusapia to make a scientific investigation of this zone. We shall see that tests have been made for this purpose with Zuccarini, but they have not given very striking results.

Therefore, the ingenuousness displayed by Italian experimentalists has failed to render unquestionable those experiments. We know with a greater certitude than before that objects are moving. We know that there is no hallucination or illusion on the onlookers' part, but we do not yet know that there has been no hidden contact, no clever trick or unconscious fraud.¹

There is a curious fact to observe: the experimentalists are amenable to a sort of impulse when they have once started to make investigations of this order, and at the same time their mental condition is in a state of evolution. They start—as scientists ought—very strict, precise and limited experiments, which are of such a kind as should lead to quite scientific conclusions. Then they expand their scope of observations, generalize their conclusions, and quote besides their experiments some other facts that are far less scientific.

Bottazzi himself acknowledges and deplors this. It is a real misfortune that, in phenomena of this order, the statement of facts observed may not be simple, quiet and objective, but that it assumes a polemical character or leads to personal remarks. This is quite right. But now, why does he observe, in his conclusion, that there is only one

¹Far superior, from a scientific standpoint, are the experiments (mentioned further) with the medium Zuccarini.

thing to do for incredulous people; it is "to charge him, Prof. Bottazzi, with fraud and quackery." This is not scientific language. In concluding a report for the Académie des Sciences, I should not make use of such an expression.

When discussing Eusapia's frauds, he asserts that he sets aside the "unconscious tricks." But they are the only ones which any scientist (experimentalist or critic) has, not only the right, but also the duty, to think of. Likewise, Lombroso, who begins his report by very precise and limited experiments with the cardiographer, deals further, in the same work with fancies and apparitions of the dead, with auto-levitations, like that of Home, "who horizontally turns around all the windows of a palace," or that of the two little brothers of Ruvo, "who run over nearly thirty miles in fifteen minutes;" or he refers to "beings," or "residences of beings" which, in order to become "perfectly compact," must "so as to become incarnate," borrow "momentarily a part of the substance of the medium, who is actually slumbering and in a dying condition."

When I see men such as these allowing their scientific mind to be led astray in experiments so methodically started, I venture so far as to wonder whether it would not be better to scrutinize with documents the experiments of others rather than to discuss my own tests.

Another instance of this not very scientific impulse has just been afforded in a circular signed by most eminent scientists.¹ The purpose is to offer an important reward to any one making a good photograph of radiations unknown at the present. There is nothing more scientific or more praiseworthy than such an initiative. But why is it wasted in the "call" by considerations (absolutely out of the question) on "the idea of immortality" that is always "more or

¹"Une importante souscription pour favoriser la photographie de l'invisible," *Annales des Sciences Psychiques*, 1908, p. 43.

less prevalent in the human brain," or by assertions such as this: "We ought to knock at the door of Science in order to get proof of the immortality of the soul." A photographer may be easily upset in his researches with a new "bath," or with an unpublished invention, provided he is overcome by the idea that in the bottom of his basin he is about to find "irrefutable proof of immortality." This is most certainly one of the reasons why a survey of Occultism is so slowly making progress. By such methods the best experimentalists forget the elementary laws of the scientific method.

More recently Eusapia made further experiments in Paris, but they did not give better results. Pierre Mille,¹ who reported them in the *Temps* (Feb. 6, 1908) writes wisely: "I fail to perceive the agent or trick that causes the sensation in the hands that we have felt. However, I cannot dismiss from my mind the hypothesis of an agent or of a trick. Those hands were human to an excessive extent. And those noises and that uproar in a dark corner—all that was too much or too little. We are obviously far from the simple and quiet test such as is made in a laboratory."

Besides, Pierre Mille adds that he prefers this unknown force "that lifts up a weight of a tenth of gram to a chain of hands, whatever those hands may be, that are able to raise a dining-room table. I do not know much about it, but I think that, in order to remove any hypothesis of fraud, we ought to come to this." This is also my opinion.

2. *William Crookes and MacNab.*

Previous to Eusapia Palladino's phenomena, I must cite those of William Crookes,² with the medium Douglas

¹Pierre Mille, "Eusapia Palladino à Paris," *Echo du Merveilleux*, 1908, p. 74.

²*Vide* de Rochas, *loc. cit.*, p. 471, after William Crookes, "Recherches sur les phénomènes du spiritualisme."

Home,¹ especially cases of levitation. These very remarkable experiments have been made with various kinds of apparatus which are, in fact, letter-weighers of every description. I should also compare the apparatus with the sthenometer formerly mentioned, with this difference, that a horizontal force capable of being attracted by the hand from below to above (without contact of the medium), replaces here the movable needle at the lower end of a thread. These are very simple and scientific experiments, and I shall cite them further on as samples of attempts to be repeated in order to investigate this part of the exteriorization of the motor force. We may put in comparison with them the experiment of the stick, given out by MacNab:²

“The medium sat down, holding upright a stick between his legs and rubbed it with his hands. Then setting his legs apart, he held them motionless. The stick kept upright—not absolutely in a vertical way, but somewhat bent towards the medium’s breast—and shaking a little, like needles that are held upright on a magnetic pole. He kept quite motionless and the stick bent at his pleasure, on the right, on the left, forward or backward. The upper part came to touch his breast. The stick was then forming with the ground an angle of 60°. It went slowly straight again, at his will, up to a vertical position. During this experiment the medium kept quite motionless and the stick complied with all the impulses given by his will, without any visible linking with his muscles, so that it looked to be capable of spontaneous movement.”

These are less striking, but more interesting, experiments, more conformable to scientific accuracy than those in which, under the same medium’s influence, “a saber was taken out of its packed-up case in a corner of the room, and was found

¹*Vide* Surbled, *loc. cit.*, pp. 81 and 93.

²MacNab, in Rochas, *loc. cit.*, p. 524.

on the floor at the experimentalist's feet; or in which the whole furniture of a room was noisily displaced or moved towards the investigator or up to the ceiling." MacNab has also witnessed personal levitations of the mediums (*loc. cit.*, p. 536).

3. *Maxwell.*

Maxwell¹ makes a difference between parakinesia, "a production of movements such that the contacts observed are not sufficient causes for them," and telekinesia, or "movements without contact." He only surveyed in the first group and under favorable circumstances the levitation of tables, "by a pretty clear light," especially with Eusapia. Telekinesia is one of the phenomena that has been most carefully and most accurately investigated by Maxwell. First came levitations of the table with Eusapia and by a sufficient light. At the same time the curtains of the closet were frequently cast forward to the table, as if a strong wind was pushing them. Often were the experimentalists' chairs displaced or shaken and lifted up, or carried over the table.

"I ascribe a peculiar importance to experiments with the letter-weigher. We operated with a light clear enough to enable us to read the rather faint divisions stamped on the scale. Eusapia, in our presence, repeatedly caused it to go down or to ascend by letting her hands fall, or by raising them up several times, the palms facing the ground. Eusapia's hands were at a distance of about twelve or fifteen centimeters above the scale. By turning them upside down, i. e. by placing their palmar face above, Mme. Palladino raised up the scale, the instrument having been previously weighted with a pocket-book. These facts observed

¹Maxwell, *loc. cit.*, pp. 86 and 195.

with Eusapia have been verified with various non-professional mediums."

I deem this to be of much more interest than an experiment made in a restaurant. In that case the medium caused his neighbors' table to draw nearer by thirty centimeters.

Maxwell infers the three following statements from his tests: *First*, there is a certain connection between the movements made by the medium or the onlookers, and those of the object concerned. *Second*, certain peculiar sensations occur at the same time when the force in question is made use of. *Third*, this force is probably connected with the organism of the bystanders.

4. *Flammarion*.¹

In his last book, which has been mentioned many times, Flammarion refers again to strange experiments undertaken with Eusapia. There will be found curious instances of the removal of objects, or of furniture, of the heaving of curtains, of touch felt by the onlookers, of rhythmical movements of an accordion.² Again a table is broken; or a book is apparently running through an opaque curtain, etc. In my opinion, all these experiments are too complex. Levitations are far more important.

Flammarion writes: "I believe that the levitation of objects should not be any more questioned than the attraction of a pair of scissors by a magnet. On a certain evening," he adds, "I requested Eusapia to place her hands with mine on a table. It was rather quickly raised to a height of about

¹Camille Flammarion, "Les forces naturelles inconnues," 1907.

²J. S. Gœbel reported in the *Annales des Sciences Psychiques* (1907, p. 631), musical séances in which, while the medium Shepard was playing on the piano with both hands, a harp placed on the piano was spontaneously playing and moving, and touched the shoulder or the knee of experimentalists.

thirty or forty centimeters, while we were both standing. At the moment when the phenomenon was occurring the medium placed one of her hands on one of mine which she shook warmly. During this time our two other hands were close to one another, and there was, on her part as well as on mine, an act of will which was expressed by words or orders to the spirit, such as 'Now then! lift up the table!' 'Cheer up,' 'Make an effort!' " This experiment was repeated for three consecutive times on that day in the full light of a gas lamp, and in the same conditions of apparent reality.

Another time five levitations of the table occurred within a quarter of an hour. Its four legs came off the floor at a height of about fifteen centimeters for a few seconds. During a levitation the onlookers ceased to touch the table, and made a chain in the air above the table, and Eusapia did so in the same manner. "Therefore, an object may be lifted, contrary to the laws of gravity, without any contact whatever of the hands that had just influenced it."

5. *The Medium Zuccarini.*¹

Very much has been said in the last year of the medium Zuccarini's levitations. He elevates tables, makes contacts at a distance and lifts himself up (auto levitations). This is the first time that a photograph "has testified to the astounding phenomenon of the levitation of a medium's body." These photographs, like Bottazzi registering apparatus, are proof of the removal, but they fail to explain the mechanism of the removal. This is the main point, though. Besides, after the reports given out by Prof. Murani and Patrizi, the *Annales des Sciences Psychiques* asserted that those articles and photographs "can only leave a doubt in

¹Vide Murani and Patrizi, "Les Lévitations du médium Zuccarini," *Annales des Sciences Psychiques*, 1907, p. 528; "Les expériences de Padoue, avec le médium à lévitation M. Zuccarini," *ibid.*, 1907, p. 674.

the minds of readers who are accustomed to accept the irrefutable genuineness of a phenomenon, only when all possible causes of errors have been definitively removed."

Prof. Vicentini and Lari have framed a very ingenious apparatus of control. They placed on the two legs of the table, which were nearer the medium, two special interrupters who interrupted the respective circuits while the pressure of the foot was more than 10 kgs. When a person ascended the table, unless he made a pressure very near the other two legs of the table, the circuits were intercepted. Reversely, when he made a pressure quite near one of the legs provided with an interrupter, only one circuit was intercepted. Special apparatus placed in the adjoining room showed by means of diagrams the moment of the interruption and how long it lasted. In the adjoining room were also two bystanders whose business it was to watch and look through a hole. We were speaking aloud in mentioning the medium's attitudes and movements. Both onlookers marked down our sentences and the exact time when we uttered them. Those were experiments prepared in a perfectly scientific manner.

Now note what occurred: "The result of diagrams obtained in the second and third séances was as follows: the diagram was coincident with those that would have been traced had anyone ascended the table and stood, now upon one leg and now upon the other, or, had he been taking a leap, in falling again on the table." After these observations, Prof. Lori comes to conclusions that are against the medium.

Prof. Severi adds: "Therefore, the apparatus has made a record, and we have proved the case: *First*, that the medium has never lifted from the table both his feet at the same time during the darkness, or as long as the light was not asked for in an explicit manner. *Second*, that when light,

was asked for in such a way that M. Zuccarini himself (or rather his mediumistic personality) was able to understand, he lifted himself up, but remained in the air for less than half a second, i. e. during the time any of us might have also remained there—without being rope-dancers—by means of a very common leap.”

Prof. de Marchi says: “As often as the experimentalists, when thinking erroneously that the medium was really hovering above, asked for light, by a conventional word which M. Zuccarini was unable to understand, light was made; but the medium was detected merely standing on the table.” This spirit-grabber¹ was quite lucky.

In the same respect, “Prof. Vicentini, having felt another contact similar to one experienced during the first séance, the light was lit. It was then found that the hand of the medium had caused this contact by shaking, although constantly held by one of the experimentalists.” The Italian scientists set apart from others these conscious and voluntary tricks as not longer in question; it is enough that these experiments do not establish a new unknown force.

a. Discussion.

From these various documents—and a good many of them are commendable and have been gathered with complete good faith—have we a right to infer that the scientific demonstration of movements without contact, at a short distance, is established? I do not think so. I first eliminate haunted houses, because conditions are there far too complex to involve a quite scientific survey.

In the experiments properly so-called, the most earnest acknowledge that control is exceedingly difficult. Removals of objects from one corner of a room to another, are the easiest phenomena to produce, and also the hardest to

¹*Vide* above, Part I, 15, and Part III, 84, y, 2nd.

verify. Maxwell¹ declares that some tests are quite conclusive: "When I have witnessed, for instance, the removal of a piece of furniture by daylight in a café, or a restaurant, or in a railway refreshment room, I have the right to imagine that I have not to do with trickery on the part of those objects."

Many jugglers operate in cafés or restaurants that are not arranged in advance for the purpose of cheating. Besides, control there is not always so easy, or it discloses frauds. Maxwell writes also: "In a series of experiments which have afforded me results that deserve careful examination, I have obtained levitations of tables on somewhat better conditions. But some among the onlookers were so unconsciously cheating that I do not think it convenient to record the parakinetic movements I have gotten, although my opinion is that they did not cheat at all. However, the not very satisfactory circumstances under which I have made that course of experiments led me to leave them off." He adds further: "We must not forget that there is nothing easier to counterfeit than a levitation of the table." He next indicates some of the ways used: "As soon as the light is attenuated it is impossible to make sure of the reciprocal examination necessary when experimentalists are seated around the table. When hands are leaning with force upon the table, it is quite easy in case the table is light to introduce the end of the shoe under one of the legs of this table and to lift it up. This working is made easier owing to the rockings of the table, whose legs are alternately coming off the floor, so that nobody is able to heed it. I need not insist upon the fact that hooks fastened to the wrist or armlets of a special shape, enable one also to lift a table and to keep it lifted." Maxwell indicates further another kind of

¹Maxwell, *loc. cit.*, pp. 26, 88 and 89.

fraud observed with some professional mediums: "The medium places himself on the smaller side of the table, provokes various oscillations, and as soon as he has succeeded in lifting up the side opposite to which he is seated, he sets his legs aside so as to exert a strong pressure on the legs of the table between which he is placed. This pressure being once made, it is sufficient to lean very heavily with one's hands, from above to below, over the face of the table, on the side where the medium is seated, so as to produce a levitation. It is easily understood that the table, sustained by the knees or the chest, performs a movement of rotation around an axis passing through the spots determined by the pressure of the knees, and that its face becomes parallel with the ground. Then it seems to be in levitation. This fraud may be successfully carried out by placing on the table a person seated on a chair. Under pretence of control the medium seizes this person's hands and finds in him the point of support necessary to provoke the rotation of the table around the axis. Especially in the darkness this trick is quite easy."

Here follows another instance of fraud given by Ochorowicz:¹ In an experiment with Eusapia, Charles Richet and Ochorowicz were repeatedly holding a hand and foot of the medium under their hand and foot. Eusapia declared that she was about to try a levitation. At a certain moment Ochorowicz perceived that the medium's left foot, which he was holding, came away from him in order to lift up the leg of the table; at the same time she made her right foot, which Richet was holding, turn, and leaned simultaneously with the end and heel of this foot upon Richet's and Ochorowicz's foot. The latter indicated by a movement of his foot that he had felt the removal; Eusapia's foot then came back in place, and the levitation did not occur. Ochorowicz

¹Ochorowicz, "La question de la fraude dans les expériences avec Eusapia Palladino," *Annales des Sciences Psychiques*, 1896, p. 79.

himself made, one day, a séance of this sort that was censured by Richet and Bellier. The latter would not believe in a fraud. He substituted one foot for another, extricated that one and lifted the table.

Flammarion has perfectly set forth the objections to such experiments: "Why this dark closet?" The medium says it is indispensable in the making of phenomena for the condensation of fluids. I should prefer nothing at all. It is strange and absolutely deplorable that the light prevents one from getting certain results. The accounts are numerous and at times contradictory.

M. Antoniadi, in his account, for instance, asserts that "everything is a trick from the beginning to the end. The matter is complex. It is hard to reach a formal conviction or a quite scientific certainty. There are some phenomena which are absolutely unquestionable and real; some others are ambiguous and we may ascribe them to conscious or unconscious frauds; also to some illusions on the part of the experimentalists. Of course, the case of an object running through a curtain would have great value if we were sure of the medium's absolute plaindealing; if, for instance, this medium was a scientist, a natural philosopher, a chemist, or an astronomer, whose scientific probity is beyond suspicion."¹

"The mere fact of the possibility of a fraud removes ninety-nine hundredths of the value of an observation, and compels us to witness it a hundred times before being certain of its reality. The conditions of certainty ought to be understood by all investigators, and it is wonderful to see intelligent people marveling at our doubts and at the strict scientific necessity for such conditions."

In short, most usually, experiments are far too complex, and at times too much unforeseen to prevent the attention

¹This, however, would not be sufficient to prevent unconscious frauds.

from being led astray, and to admit of a quite scientific examination. Moreover, most of them are carried out successfully only in darkness or semi-darkness, and nearly all mediums have been, one time or another, caught in the very act of fraud. I very well know, as I have already stated, that this is no proof that they are constantly cheating. But this is enough to imply a serious suspicion; and in science there must be no room for doubt. I believe I am able to infer that, despite the many efforts made and the curious experiments described, one has not yet afforded scientific final proof of the reality of movements provoked by mediums at a distance and without contact.

Babinet relates the case of a young woman who moved chairs with frightful speed, owing to a contraction of the muscles of her leg, which no body suspected. The movement seemed to be spontaneous.¹ In concluding his article, he demands that a subject shall come and say before the Académie des Sciences that "with as many mediums as may be thought convenient, but without any contact whatever, and at a distance, he throws into the air without any other support than will, a weighty substance, denser than the air, and quite at rest. Should this assertion be found to be real, the subject would be acknowledged as the first scientist of the whole world." This challenge, issued half a century ago in the *Revue des Deux Mondes*, has not yet been fulfilled.

Such were my conclusions in the preceding edition of this book. The experiments recently made with Eusapia Palladino and Zuccarini, as stated and debated above, do not seem to me to imply a modification of my opinion.²

¹We might compare with this the deeds of Miss Annie Abbott (the little Georgia Magnet), which I have described (Part I, 13).

²I do not think either that my conclusions should be altered, after the quite recent inquiry made by the *Matin*.

β. Warnings against Further Experiments.

If scientific proof of the exteriorization of motor force has not been given yet (in my opinion), I do not mean by this that it is a matter to be given up, like the squaring of the circle. I believe, on the contrary, that it is one of the chapters of occultism which is soon to be verified, and on the whole, one should accumulate researches and experiments by using strictly scientific methods.

My most earnest entreaties are, for the present, that investigations be confined to very simple experiments in full light. Besides, in a séance, only one result ought to be sought for, and no notice should be taken of an unexpected fact, because such a fact is not verified. A touch on the shoulder or the knee, for instance, means nothing because it was not looked for, and consequently cautions were not scientifically taken to investigate it, or make it precise. Moreover, the attention should not be led astray by something else—music or songs, for instance.

The most perfect experiments, which in everyone's opinion appear as the most conclusive, and to which it would be convenient to restrict experimentation until further notice, are the phenomena of levitation without contact (letter-weigher or table)¹ by full light. This being once acquired, a great advance will be made, and it will be possible to make progress to another point.

If any one wishes to start again those tests, in a simple but quite safe manner, I advise him to look first for someone able to move a table, to make it turn, or to displace it and then to lift it without contact.² One might first attract the

¹I only refer here to levitations of objects. The medium's levitation is a complex phenomenon whose survey should not first be sought for.

²One might begin by investigating the influence exerted by subjects over the apparatus described above (Part III, Chapter VIII, 68, *b*)

table without contact, as everyone does; then one should see the displacement of the piece of furniture or object going on while nobody is any longer in contact with it.

The subject capable of moving an object at a distance being once found, the game will be won. He will then be caused to repeat a very simple experiment (with the letter-weigher for instance) in full light.¹ Babinet's wish will be fulfilled and the experimentalist proclaimed "the first of scientists in the whole world."

γ. *The Inquiry of the "Matin."*²

The *Matin* has just given out (while I was correcting these proofs) interesting documents referring to Occultism, and more particularly to removals of objects without contact.

D'Arsonval witnessed about fifteen séances with Eusapia Palladino. He says: "During those fifteen séances, which have been quite enough to enable me to have an opinion on the matter, we have many a time caught Eusapia in the very act of cheating. Still some phenomena remain mysterious and unexplained. Among these I will mention the case of the levitation of a table of ordinary weight. Eusapia, whose knees were held and whose hands were placed above the table, was seated on a chair resting on scales. Those scales indicated the change of weight in the adjoining room. When the table was lifted Eusapia's weight was increased by that of the table." D'Arsonval concludes: "At the present no verification enables us, either to assert or to deny, in a strictly scientific manner, the genuineness of the phenomena of levitation. Eusapia is a bad subject for this

under the name of biometer and sthenometer. It is not yet proved, however, that both orders of removal at a distance are of the same kind.

¹In case the experiment must be started in darkness, there should be a possibility of making light at once, by giving a signal, intelligible to the medium.

²"Le grand doute," *Le Matin*, March, April and May, 1908.

kind of research. She constantly manages to render impossible any permanent scientific control."

On the contrary, in Morselli's opinion phenomena of levitation of tables are the rudiments of spiritualism. "There is no doubt at all about it. The table is lifted by itself, without tricks or frauds, and remains suspended for seventy-eight seconds. I shall even say that here, at Genoa, a young poet has made a case move weighing 180 kgs." Lombroso asserts also that "the levitation of a table, as well as objects brought from a distance, occurs without any tricks whatever. But Eusapia 'gets weaker,' and makes 'more frequent frauds.' Her spiritualistic powers are slowly but progressively diminishing."

Gustave Le Bon says that this inquiry has led to no appreciable result and that it repeats, in a more modern manner, Babinet's challenge (above mentioned). He offers a prize of 500 francs to the medium who will cause a levitation of objects without contact, on scientific conditions which he states. Prince Roland Bonaparte adds the sum of 1,000 francs. The gifts reach a total of 2,000 francs owing to Dariex. Albert Jounet adds another sum of 500 francs to Le Bon, if proof is afforded "that the movements, without contact and by full light, of the needle of Joire's sthenometer, obtained through a bell-glass, under the influence of a human hand, are solely due to an hallucination on the part of the audience or to fraud;" and in another newspaper (*L'Eclair de Paris*, April 29, 1908), Georges Montorgueil promises 500 francs to the conjurer who will come to the *Eclair* "and deceive us by counterfeiting with his tricks all the phenomena of Occultism." This reminds one of Archdeacon Colley's challenge to Maskelyne, the juggler. (Chapter X, 84, γ 2nd).

Papus reproaches Le Bon with asking for levitations in full light, while according to his own investigations, "a

power forty-five times stronger is needed to produce a phenomenon by white light than to cause the same phenomenon by the dim light of Crookes's phosphorus lamp, or by the red light of photographers.¹

Harduin answers with his far-famed humor: "The medium, being present in a room illuminated by the red light of photographers, would lift up a table. Then the light being made, the same medium would be requested to remove, at a distance, any object whatever whose weight would be forty-five times lighter than that of the table. Thus the amount of fluid spent would be identical and the medium would get quite easily the 2,000 francs promised. This is tempting."

This inquiry gave proof of the keen interest taken by the most prominent scientists in these matters, and at the same time it testified to the really scientific way in which they are actually investigated, but I do not deem it to be conclusive enough to alter any of the conclusions of this book.

89. RAPS.

a. Cases.

Another experiment which one should attempt to make, because it is simple and implies scientific control (although its determinism is less precise than that of the letter-weigher), is the experiment of raps. Raps are knockings given on the face of a table, on the floor or ground, on on-lookers, the walls or furniture, or even on the ceiling, and are heard by the bystanders. These are the phenomena observed by the Misses Fox (see above, chapter I, 4) that became the startingpoint of the whole modern period of

¹The proposal of M. Le Bon is equivalent to giving 500 francs to a photographer who will impress a plate after having left it during ten minutes in full light.

Spiritualism. Maxwell¹ has accurately investigated them.²

In order to cause raps in the simplest manner, "experimentalists seated around a table are leaning their palms upon the face of the table. I have obtained raps in full light. I have even so frequently obtained them by full light, that I wonder whether the darkness promotes them to the same extent as other phenomena. Besides, the contact of hands is not indispensable in the production of raps. With certain mediums I experienced no difficulty in producing raps without contact. In case raps are obtained with contact, one of the best ways to get them without further contact, is to keep one's hands leaning upon the table for a certain while, then to lift them up very slowly and keep the palms facing the table, the fingers being slightly extended without any stiffness. With certain mediums the force emitted is sufficient to exert an action at a distance. I had an opportunity to listen to raps pounding on a table which was at a distance of about two meters from the medium."

Maxwell has obtained sonorous raps with a medium in a restaurant and in railway refreshment rooms. "The queer noise made by these raps attracted the attention of persons present and annoyed me very much." He has also heard remarkable raps in museums, before masterpieces of painting, and especially religious pictures, and in a house rendered famous by a man of genius who dwelt in it. In the room where this writer died, the suspicious housekeeper's attention was aroused by raps. A rap most usually consists of a sharp knocking of varying intensity. It is "very analogous to the tonality of an electric spark (this is true of raps in tables, at least), but this is only the ordinary standard of raps, whose variations are innumerable."

¹Maxwell, *loc. cit.*, p. 67 (the whole chapter).

²*Vide* also Flammarion, article quoted in the *Revue*, p. 32.

Besides, the tonality of raps is varying according to the substance of the objects on which they are clanging; they may resemble the faint noise made by a mouse, or a saw, or that of nails striking on wood, or grating on a fragment of cloth. Raps may vary according to the various personalities of mediums. "Each embodied individuality expresses itself by raps of its own." Maxwell mentions very queer instances of raps which become quite complex phenomena in respect of a scientific survey.¹

The author reports these facts, although he acknowledges that these mediumistic personifications have not convinced him as to their identity. Moreover, in surveying complex and strange raps, Maxwell comes to this conclusion: "They are closely connected with the onlookers' muscular movements," and he states the three following principles: "*First*, any muscular movement, even a faint one, usually precedes a rap. *Second*, the intensity of a rap does not seem to be suited to the movement performed. *Third*, I believe the intensity of a rap does not vary in proportion to the medium's remoteness."

Raps cause in the medium a slight fatigue, which is also experienced by the onlookers themselves.

b. Discussion.

Such phenomena are, apparently, still occult and ought to become the subject-matter of investigations and scientific surveys by experimentalists in the future. But for this purpose it is quite necessary to comply with very strict conditions as well as to give close examinations and to have a

¹Sometimes, raps imitate a shout of laughter. This is coincident either with a funny story told by one of the bystanders, or with teasing. Another entity embodies a man whom I was very fond of. The knockings become deeper. This personality seemed to have the strange perspicacity and absolute kindness of the person with whom I was acquainted.

perfect knowledge of the many causes of error. Haunted houses, in which raps are so often and so easily heard, are, as I have said above (same chapter, II, 88, b), of such an order that they do not involve a satisfactory scientific survey; in these cases phenomena are too complex, and the attention is too much scattered. Hjalmar Wijk and Bjerre¹ have, however, established that hypnosis might in certain circumstances, become a valuable help for scientific investigation.

By leading into sleep Karin, the hysteric medium of a haunted house in southern Sweden, the inquiry did not succeed in detecting the mechanism of raps, as Pierre Janet did regarding objects brought in the experiment mentioned above (Chapter X, 81, b), but they attained their ends in managing and provoking raps at an appointed time, by suggestion in hypnosis. This is quite important in reference to the polygonal nature of raps—at least in those instances. This would be an example of involuntary and unconscious frauds in raps. But there are also conscious and voluntary deceits in them.

Thus they have been referred to clattering movements of the toes, and to a “contraction of the sinew of the fibula, which has been conjectured by Jobert de Lamballe, and has been the matter of a momentous debate at the Académie.”²

“Dr. Schiff, who was called upon by a German young lady who pretended to be possess of a spirit-rapper, found out the secret; he ascertained that this noise happened on a level with the anklebone in the place where passes the sinew of one of the muscles of the leg. The young German woman displaced this sinew at her pleasure, and made it noisily fall into the bottom of its groove. Dr. Schiff himself practised

¹Hjalmar Wijk. “Karin, Etude expérimentale sur les phénomènes de frappement spontané,” *Annales des Sciences Psychiques*, 1905, p. 517.

²Pierre Janet, *loc. cit.*, p. 401.

this working and became rather clever at it.¹ At Cambridge, Hodgson ascribed some of the raps produced by Eusapia Palladino to "knockings made by the medium's head on the face of the table."

Maxwell,² who so perfectly scrutinized these phenomena, "has detected positive frauds with some of his mediums." Moreover, he has stated and counterfeited various imitations of raps. He asserts that there are many kinds. The simplest and most perfect way to counterfeit them, is to make slide very slowly, by an imperceptible movement, the end of the finger when leaning upon the table. Far better results are obtained when the finger is quite dry and doctored with turpentine and benzine.

Raps may also be imitated by using a finger nail. Again in the darkness the cheat "is able to counterfeit raps on the floor—dull raps—by cleverly striking the floor or legs of the table—sharp raps by letting his shoe slide very slowly along the legs of the table or of a chair. The very slow rubbing of clothes or linen, namely of cuffs, may lead to the belief in the reality of raps." It is equally possible "to lean with a varying force upon the face of the table if the top is quite thin, or when the table is not well joined, when its parts have too much play; variations in the pressure of the hand will then provoke cracks that counterfeit raps."

"I have seen a young medium who had been able to hide a stick, and owing to it could imitate raps on the ceiling. I have known two others who fought with fisticuffs against a table; others were striking it underneath with their feet. All is possible in the darkness with confident onlookers. Some persons, by leaning the foot in a certain manner and by shrinking the muscles of the leg or of the fibula, are able to counterfeit knocks on the floor. This fact has been es-

¹Bersot, *loc. cit.*, p. 130.

²Maxwell, *loc. cit.*, pp. 68, 79, 84, 257 et seq.

pecially noticed as regards the sinew of the long side muscle of the fibula.

Maxwell adds, "I have observed a medical student, a neuropathic and incorrigible defrauder, who obtained knockings pretty similar to raps by leaning his elbow upon the table, and making peculiar movements with his shoulder. There are also people who are able to make their joints creak at their pleasure."¹

Maxwell writes further in reference to raps and to the ease with which they may be counterfeited: "By full light I most easily present the illusion of them to persons who are cautioned that I am cheating. It is very hard to observe at the same time the ten fingers, the arm, leg and feet."

c. Conclusion.

We may infer from all that has just been stated that raps are still to be included under the head of occult phenomena. But those phenomena are subject to a verification, and their experimental survey ought to be continued so as to try and establish their scientific reality. But, in this survey, simple raps only ought to be attempted in a limited circle of experimentalists, and by full light.

Even in such cases absolute supervision is quite difficult. The attention is somewhat hesitating, since nobody knows

¹The working of the kneejoint has been impeached by Mrs. Sidgwick, in her article, "The physical phenomena of Spiritualism" (Proceedings of the Society for Psychical Research, t. XIII, p. 45). She recalls the interpretations given by Drs. Flint, Lee, and Coventry, who have surveyed Mrs. Kane and Mrs. Underhill, two of the well-known sisters Fox. Mrs. Sidgwick has made experiment with the third, Mrs. Jencken, and admits the explanation of the American doctors. In their opinion the double raps were due to a quick movement of disjuncting and setting of the knee. By placing the medium so as to render impossible this voluntary dislocation (for instance, the medium being seated, the legs extended, and the heels leaning upon a soft cushion), there was no rap at all.

how and where the rap is to occur. This is the reason why I deem it to be more conformable to reason to start the investigation of movements without contact, making the survey of mere levitations of objects, by full light, as I have stated above (same chapter, 88 c.).

III. CLAIRVOYANCE

9. DEFINITIONS; CLAIRVOYANTS AND FEMALE SEERS.

a. Definition.

If I mention clairvoyance here along with the phenomena whose scientific demonstration seems to be, if not very near at hand, at least quite possible, it is because I ascribe to this word no idea of divination or prophecy, nor even any idea of *télésthésia* or telepathy. I use the word clairvoyance only in its etymological meaning, and I view it solely as a *faculty to see through opaque substances*; in the same manner we have "clairaudience" and "clairesthesia," as in Paul Sollier's instance above mentioned (same chapter, 85 c). Therefore, I eliminate from this paragraph the subjects popularly called "voyantes" (female seers).

In case clairvoyance be ever verified, the subject gifted with this power will possibly be able to detect the presence of an extraneous body in the stomach (after the manner of Röntgen's rays). In case he has previous knowledge of normal anatomy, he will be able to ascertain the increase in the bulk of a liver, and should he be experienced in medicine, he might possibly ascertain if there is some liquid in the pleura, or stones in the biliary vesicle; but he will be unable to diagnose a disease unknown to him, and far less, to indicate its remedy; nor will he be in a position to find treasures or foretell the future.

Even if clairvoyance should be later on verified, it would be possible to ascribe only to a deceitful quack, or to a

swindler, advertisements such as the one below, taken from the *Petit Marseillais* (December 27, 1906):

I advise, guide and comfort.

APPLY TO MME. M——

Spiritistic Somnambulist

THE FAMOUS SEER

Fortune-teller by Cards and Medium Healer

O! you who are suffering and in despair, apply to Mme. M——, she will cure and comfort you, owing to her magical secrets. She breaks spells, and makes everything successful.

Apply to her, or write in all confidence.

(Here follows the address)

The author of the two following statements in the *Sauveur des Malades* (October, November, December, 1906) is perhaps more unconscious, but not less noxious:

"All the recipes-used up to the present day by M. de S. R. in the healing of the sick who applied to her, so as to make them free from their bodily sufferings, and from their social and mental sorrows, are of no effect, from this day of Christmas, 1906; neither for the salvation of any one; the great Spirits who presided over them, have entered a psychical Rest. The new Spirits who have succeeded them with M. de S. R., in her mission of universal salvation, have disclosed as curative possibilities only the positive will whose expression is included in the above call. *The truth spoken by the tip of the tongue would be a mere form. To have in the brain the desire of wishes exprest*, will prove useful to our dear patients, poor victims of civil or religious legislators." L. C. C. P. D. U.¹

"M. de S. R., founder and editor of the newspaper *le Sauveur des Malades*, is at home [here is the address] on Fridays and Saturdays. She may be taken advice of by letter. Notice is hereby given to patients given up by doctors. Hope is still possible for them."

In the same number (No. 3 "from Raphaëlle's birth") dedicated "to all wives who died victims to syphilis and to the misconduct of their husbands"), M. de S. R. declared that "she has been already sent to prison eight times for unlawful practise of medicine, but she has promised to stick to

¹Such a bit of prose, as turned into English, will seem somewhat ambiguous to readers. It is not more intelligible in French. I chiefly refer here to the sentence which I have italicized. (Translator's note.)

her mission, even before the executioner. It will be impossible to dispirit or dishearten her."

Therefore I do not use the word "clairvoyance" in the meaning ascribed by most authors to it, or to the word lucidness.¹

I have dealt in the chapter devoted to telepathy (Chapter X, 78 b.) with Mlle. Couesdon, and various prophets, psychometers and diviners, and also with premonitions and forecasts. I believe I may say that the opinion expressed here is shared by the whole world of scientists. Therefore, scientists were rather surprised to hear a few years ago of the Saint Quentin (female seer's) trial.²

b. The Female Seer of Saint Quentin.

Near Saint Quentin, Estelle B., a female seer of the suburb of Isle, is induced to sleep by her father or brother; then she is put into contact with the patient; she diagnoses the disease and writes a prescription in due form. The *Annales des Sciences Psychiques* wonders whether there is an "inward alloscopia" in the case. The doctors there are quite upset. The office of the public prosecutor at Saint Quentin takes proceedings for unlawful practice of medicine and swindling, and M. Dorigny, the examining magistrate, is trusted with the inquest, while Maître Cornet, the counsel for the defense, requests the judge to make a magnetic experiment with the seer, and if necessary, to appoint one or several physicians for the purpose of investigating Estelle B.

¹Vide Charles Richet, "Note sur un cas particulier de lucidité," *Annales des Sciences Psychiques*, 1905, p. 161; and H. A. Fotherby, "L'éther, véhicule de la conscience subliminale. La clairvoyance," *ibid.*, 1906, p. 410.

²Vide *Les Annales des Sciences Psychiques*, 1905, p. 709, and 1906, pp. 112 and 385; *L'Echo du Merveilleux*, 1905, pp. 183 and 205; *Les Archives générales de Médecine*, 1906, p. 1853; *la Revue de l'Hypnotisme*, 1906, p. 146; *Le Journal*, January 7, 1906; *Le Matin*, May 10, 1906.

Dr. Paul Magnin, professor of the School of Psychology, is appointed and works on this experiment, "in the office of the examining magistrate, the public prosecutor and his assistant being present, as well as the judge and his clerk, Maître Cornet, the counsel for the defense, and Dr. Moutin whom he has introduced." The expert finds in Mlle. B. very noticeable stigmas of hysteria (general and special anesthesia, amyosthenia, etc.). He makes her sleep and awaken near her father, then he hypnotizes her quite easily, establishes that there is no feigning whatever, and concludes that she belongs to this class of "hysterics easily liable to hypnotism in any manner, whose number is pretty appreciable and among whom somnambulists are to be found." But, from this verification in Mlle. B. "one should not infer at all a special qualification for interpreting physiological or psychological conditions or phenomena, either on individuals present with whom she was in direct contact with the hand, or at a distance, on persons remote from her, with whom she was in immediate communication by touching an object used personally by them (undercloth, scarf, etc.) or a lock of hair. The hypnotic condition, even in case it is very sound, bestows on those who are involved in it no extraordinary faculty, no peculiar qualification. A hypnotized subject does not acquire by the fact of his sleep the faculty of painting a portrait if he does not understand drawing and painting; in short, he is unable, by the fact of his sleep, to perform an act which he could not perform at waking. *A fortiori*, it is quite impossible for him to diagnose or make forecasts and write prescriptions, things which are already so hard to do after long theoretical and practical investigations."

At the same time, Dr. Paul Magnin refused to be present when Mlle. B. was giving medical advice to her patients, and he concluded: "In the actual period of Science, I may assert

that no somnambulist is able in any circumstances whatever to know the disease of a person or to state the suitable remedy without having made medical studies. This assertion is not the expression of my personal opinion only. It is ratified by the authority of the most prominent scientists." After this the barrister asked for a cross-examination by Dr. Baraduc. In his report this physician traces an outline of psychometry "after the peculiar ideas adopted by himself on the matter—ideas which have not been shared by many, even among occultists and followers of the soul theory¹—rather than according to well-established experimental data." He makes with Mlle. B. experiments as little conclusive as they are little scientific, in which he causes the subject to guess the temper, the disease or the sex of a person, by the contact of a lock of hair, by a handkerchief or a waistcoat, and concludes that she is "a living psychometrical instrument, *whose veracity must be acknowledged by justice* in case it would be thought convenient to circumscribe the use of such a power."

On May 17, 1906, the police court of Saint Quentin nearly sanctioned by their sentence, the momentous passage I have italicized, and almost discharged the prisoner.² They made diffuse quotations from the ideas exprest by Baraduc, relying upon the disagreement existing between professors and doctors in the matter of occult phenomena.

The fact is important and has deeply imprest the scientific world, as I have said above. Indeed, one should remember that Baraduc's ideas are quite his own; I have discuss them (Chapter VIII, ii, 70) when dealing with the theory of the radiant psychical force—and it is usually con-

¹*Annales des Sciences Psychiques*, 1906, p. 385.

²The Court sentences Mlle. B. to a fine of 40 frs; her father to a fine of 100 frs.; and her brother to 20 frs.; (the latter with reprieve, as he had never been tried before) for unlawful practice of medicine.

sidered that they have not become as yet a matter of real scientific demonstration, and that, on the contrary, the state of positive science on that point has been very clearly established in this statement unanimously adopted on June 19, 1906, by the Société d'hypnologie et de psychologie, under the chairmanship of M. Georges Rocher (formerly a member of the Committee of the Corporation of Barristers, and vice-chairman of the Société de Médecine Légale), after the reading of Paul Magnin's report, and a debate in which Paul Farez, Rocher, E. Favre, Félix Regnault, Bérillon and Jules Voisin took part:

"The production of the hypnotic condition enables one to obtain the making of definite acts, the growth of emotions, feelings or opinions, and also a modification of certain modalities of temper; but in no circumstance whatever is the subject hypnotized endowed with aptitude or qualifications only afforded by science and experience. Especially as regards the medical profession, the so-called clairvoyance concerning the diagnostic or cure of diseases is contrary to facts perfectly verified and must be viewed as of no value."

91. CASES AND DISCUSSION.

Since I have cleared the chapter on clairvoyance from all that does not belong to it, I first wonder whether there are subjects capable of seeing through opaque substances. This would, *a priori*, involve nothing antiscientific; opaqueness and transparency being things absolutely relative, as has been shown by the facts detected and surveyed by Röntgen.

a. A Few Cases.

Dupouy¹ relates that Trajan, "who was very skeptical regarding somnambulists in his era, sent to the oracle of Heliopolis written questions under a sealed envelope. The

¹Dupouy, *loc. cit.*, p. 115.

god gave directions that blank paper be sent back to him. Trajan was surprised. Indeed, he had forwarded only a notebook without any writing." A cataleptic subject of Petetin "could see the contents of a letter which strongly leaned upon her fingers; another was able to see a portrait placed over her epigastrium. "Dr. Bertrand was very much surprised to see a subject who could detect through gowns a herpetic disease of the genital organs. Another saw a bullet hidden in the head, and found it out quite easily." In all these facts, there is only the beginning of a scientific demonstration of clairvoyance.

Richard Hodgson¹ gives, after the "Révélations d'un médium spirite" the following description of a trick used in order to counterfeit clairvoyance:

"The onlooker is provided with a strong white envelope of small size, and with a blank card, of about the size of an ordinary visiting card. He is requested to write on this card the name of a friendly spirit, and one or two questions, at most. When he has written what has been asked of him, he is requested to place the card under the envelope, the handwriting being on the smooth side and remote from the glue. When this is done, he is supplied with sealing wax so as to close the envelope and prevent it from being opened. At this moment the medium takes a seat opposite the onlooker and near a window. He places the envelope on a slate and both are put under the table. After a sufficient time so as to enable him to do his work, knockings are heard on the slate, which he withdraws and holds out to the bystanders. The envelope is still on the slate and nothing shows that it has been touched. The seals are intact without any marks or laceration. Answers to the questions

¹Richard Hodgson, "Comment M. Davey a imité par la prestidigitacion les prétendus phénomènes spirites," *Annales des Sciences Psychiques*, 1894, p. 364, note.

asked are written on the slate and the name of the spirit to whom they had been made is signed at the end of the message. An experienced man, in ascertaining whether an envelope has been opened or not, would infer rightly that the envelope has not been touched, and in case he should give no scope to his ignorance of peculiar inventions, he would readily ascribe the phenomenon to a power of clairvoyance. In order to make this trick one should do exactly what the medium did before he placed the slate under the table. Instead of holding it there with your hand, slide one of the corners between your leg and your chair. Then, you are at liberty to do what you please with your hand. The onlooker is unable to see your movements, since the table is between you. You take a small sponge saturated with alcohol from the pocket of your coat. By moistening the envelope on the card you will quite easily read the name as well as the question. You write the answer and sign the name to which the question was address. You may be sure that the bystander will be utterly astonished. Alcohol only is suitable for moistening the envelope. Nothing else would enable you to read the writing on the enclosed card; nothing else would dry quickly enough without leaving any mark of manipulation. Water would dry too slowly and wrinkle the envelope at the place where it was used, and by this the onlooker would guess that you had not been dealing rightly."

There are, however, more serious experiments.¹ Richet places drawings under an opaque envelope, and next makes a somnambulist depict or reproduce them. In some cases bystanders had no knowledge of drawing whatever; 30 experiments of this kind out of 180 have been more or less successful. According to M. Richet, this indicates the aver-

¹Albert Coste, *loc. cit.*, p. 100.

age number of days of lucidness. Only for one day out of six do somnambulists have flashes of lucidness, and even during that day lucidness is quite varying and unsettled."

Mrs. Sidgwick's¹ experiments are only "guesses at cards taken out of a pack without having been seen by anyone. My friend has attempted about 2585 experiments of this order, and in 187 instances she accurately guessed the cards; at the same time she guessed to their suit and number. However, in 75 instances it has been necessary to repeat the trial (for instance, so as to know whether the three of hearts or of spades was the one). By registering these instances as semi-successes, we reach a total of 49 successful trials, thrice superior to the number ascribed to chance by the computation of probabilities."

*b. Personal Instances.*²

I thought I had found a conclusive instance of vision through opaque substances with a subject whom my colleague, Dr. Ferroul of Narbonne, had very much talked of to me, and on whom interesting reports had already been issued in the *Annales des Sciences Psychiques*.³

A first experiment was perfectly successful. The subject read through a sealed envelope and a sheet of tin⁴ a few lines I had written in French; he also indicated Russian prints marked underneath. But a second experiment instituted with very strict supervision by a Committee of the "Acad-

¹Mrs. Sidgwick, "Expériences sur la clairvoyance," *Annales des Sciences Psychiques*, 1891, p. 157.

²"Une expérience de lecture à travers les corps opaques," *Semaine médicale*, December, 1897, No. 56, p. 443; "Rapport de la Commission de l'Académie des Sciences et lettres de Montpellier, sur la vue à travers les corps opaques," *ibid.*, 1898.

³A. Goupil, "Lucidité. Expériences du Dr. Ferroul," *Annales des Sciences Psychiques*, 1896, pp. 139 and 193.

⁴This hindered the trick pointed out by Hodgson.

émie des Sciences et Lettres de Montpellier,"¹ proved a complete failure, and even photographic plates were found impressed by light, although it had been asserted that they had been kept inside their frame. Those were perhaps unconscious frauds. Anyhow, it was an absolute failure.

c. Conclusions. Rules for Further Experiments.

Therefore, this is the newest matter which Science has not brought to light.² Still, it is rational and even convenient to make a scientific survey of the question, and to know how experiments of this kind ought to be instituted.

I think it is interesting to give in this respect a few particulars as to the manner in which my colleagues Bertin-Sans and Meslin had prepared the Narbonne experiment mentioned above. Dr. Ferroul and the two other members of the committee were not in the secret of the preparations in order that they might preserve greater independence in registering results.

Three experiments were prepared: "The first was the reading of a letter stitched inside the coat of one of us, and whose contents was unknown to us; the second was the reading of an analogous letter which we might hold out to the subject whilst we were leaving it, under no pretence whatever, in his hands. Lastly, we had provided for the case in which, owing to any cause whatever, both experiences just mentioned, having been rendered impossible, we would have been led to leave in the subject's hands, when de-

¹This committee consisted of MM. Henry Bertin-Sans, superintendent of the studies of psychics at the Faculty of Medicine (now Professor of Hygiene at the same faculty); Grasset, Professor of Clinical Medicine at the same faculty; Louis Guibal, Chairman of the Corporation of Barristers, and Meslin, Professor of Physics at the Faculty of Sciences.

²"We only declare," says Boirac, (*loc. cit.*, p. 257) "that, at least in the case I have surveyed, the transposition of lenses is solely apparent, and consists, in fact, of a supernormal and subconscious interpretation of tactile sensations usually unperceived."

parting from Narbonne, a letter he was to forward back to us, untouched, and whose contents he was to disclose to us by correspondence."

In order to carry out this program, "we took a new pack of 32 cards, and wrote a different word on every card; besides, we used 32 tickets and wrote on each of them a special sentence and number from 1 to 32. We next inscribed on a sheet of paper opposite each of the numbers, 1, 2, 3, . . . 32, the sentence corresponding to one on our tickets, and opposite each playing-card, the word written on it. The schedules being thus filled up, were placed under an envelope sealed with five seals of black wax; moreover, the middle seal was dissimilar to those on the corners.

"After this we mixed up our cards and tickets and enclosed them, two by two, in distinct envelopes. Those thirty-two envelopes were mingled, and we selected three of them haphazard in order to use them in the intended experiments. The twenty-nine envelopes left were enclosed in a larger one, which was sealed by black wax seals as above. Each of the three envelopes selected was folded in a sheet of tin and next placed in another envelope. Two of them were sealed with black wax in the manner already stated. Both envelopes were then ready for the first two experiments. The third envelope, destined for the third experiment, was fixt against half a photographic plate of 13 x 18 cm., and care was taken to insert a sheet of black paper between the letter and the gelatinous face of the plate. The whole was then wrapt up in eight folds of black paper and locked up between two layers of shavings in a wooden box which was itself covered with strong paper, and sealed with ten seals of black wax, in the same manner as the envelopes. The other half of the photographic plate was disposed in a similar way, with a sheet of blank paper (instead of the letter). The plate had been previously impress in the dark room: we

had taken the photograph of a monument and one of us had stood towards one of the ends of the field, and a workman unknown to us at the opposite end. One of those invisible images was on a half of a plate and the other on the second half." Therefore, it was impossible, unless operating in a room illuminated only with red light, to read the contents of the letter, and especially the characters marked on the plate, without coloring it. This cloud would be easily detected when developing this half of the plate by comparing it with the other half.

The schedules were placed inside one of the lower compartments of a safe belonging to one of us. M. Bertin-Sans kept the outward key of the safe, whilst M. Meslin had the keys of the inner compartment. As to the twenty-nine envelopes placed under the same sealed envelope, they were placed together with the two envelopes to be used in the first two experiments and the box prepared for the third one, in a safe hired at the *Crédit Lyonnais*. The key was taken by M. Bertin-Sans, and M. Meslin, for his part, locked it up with a secret key which he alone understood. I think it is rather hard to imagine better and more multiplied precautions to avoid fraud, and really make an experiment of clairvoyance or vision through opaque substances.

Dariex¹ made the objection that nobody knew what the subject was to read, and he deemed it to be a defective condition of experimentation. "For, until the contrary proof is afforded, especially because of the whole of the experiments previously made with this subject, and also because of our actual knowledge of what might be called the phenomenon of thought-reading, or of unconscious mental suggestion, it

¹Xavier Dariex, "Analyse et critique du Rapport de la Commission de l'Académie des Sciences et Lettres de Montpellier," *Annales des Sciences Psychiques*, 1898, p. 20.

was far more rational to conjecture a faculty of mental reception than a power of objective vision through space and opaque substances."

I answer that our purpose was to try, not thought-reading or mental suggestion, but vision through opaque substances. And if I mention all the precautions instituted and taken by Meslin and Bertin-Sans, it is because they accurately provide the requisites of our aim, and because I think that the scientific fate of all those matters is connected with strict and limited experiments instituted for a well-known purpose

CONCLUSIONS

1. Occult phenomena and psychical phenomena are of a pre-historic character, that is to say, they do not as yet belong to science, but they may some day enter its domain; they cease to be wonderful and occult when once they become scientific. Occultism is therefore a sort of promised land, which science is constantly attempting to approach and invade.

This pre-scientific character distinguishes occult phenomena and Occultism from the supernatural, from miracle and from the traditional science of the magi and of theosophy, which are and will always continue to be by their very division quite out of the range of science.

2. That which makes the difficulty of studying Occultism and retards our progress is (a) on one side the complexity of experimental determinism which distinguishes phenomena which are not easily capable of repetition at the will and in the laboratory of the explorer; (b) on the other side, the necessity of always having a medium in order to make experiments and, consequently, the frequency of fraud, conscious or unconscious, in these mediums.

These difficulties are not, however, insuperable and science is constantly making conquests in the domain of Occultism and rendering a certain number of its phenomena no longer occult. Thus it happens that the boundaries of Occultism are changing and constantly becoming narrowed, so that the Occultism of yesterday is no longer the Occultism of today.

3. The phenomena which at present have been re-

deemed from the domain of Occultism, and which constitute the Occultism of yesterday, may be grouped under three heads: first, animal magnetism, now known as hypnotism; secondly, the involuntary and unconscious movements which are revealed in turning tables, etc.; thirdly, the sensation of memory, so-called polygonal, and resulting in false divination, polygonal hallucination and crystallomaney, reminiscences and false judgments of a so-called polygonal character; fourth, the association of ideas and imaginations which are cognizable in the trances of the mediums.

4. In order to study the occultism of the present day it is indispensable to make a clear distinction between the study and discussion of theories and the study and discussion of facts.

5. What we call a theory is that which has not been established and is not yet irrefragable. Neither spiritism nor psychical radiations have yet been demonstrated as facts. If their existence as facts is some day actually established it will be easy to discover the theory that underlies them, and that too, without any recourse to the evocation or reincarnation of spirits.

We should not therefore expect to find in the facts of Occultism any new proof of a future life and of the immortality of the soul any more than we ought to see in them arguments against spiritualism. The study of Occultism is absolutely independent of all the philosophical or religious doctrines which look on from their tower of ivory, with interest indeed, but without personal danger, at the experimentations and the discussions of the neurobiologists; the existence or development of any philosophical or religious doctrines does not depend at all upon the solution which the future may sometime yield to the unanswered questions of Occultism.

6. The facts which used to belong to Occultism may be

divided into two groups; I., the group of facts whose demonstration, if it is possible, seems in their case to be very far off; it comprises (a) telepathy and presentiments; (b) communication between persons at long distances; (c) materialization; II., the group of facts the demonstration of which appears to be less out of our reach and ought at once to be investigated; it comprises: (a) mental suggestion and direct communication of all thought; (b) the movement of objects without human contact, levitation and rappings; (c) clairvoyants.

7. There is still another form of Occultism to be discust; there are occult phenomena which still remain far beyond the range of positive science and whose scientific demonstration has not yet been accomplished. But it is none the less evident that this demonstration is not rationally impossible, and it is reasonable that scientific men should investigate these grave questions. It is even their duty to study them, and we may look forward to the moment when certain of these facts will cease to be occult and will be recognized as scientific.

8. In order to obtain these results and expedite the realization of this program, it is desirable that all these experiments be conducted with a most rigorous method.

It would be a good thing to lay aside for the moment all complicated researches or extraordinary experiences in which the elements of definiteness and finality are too numerous and too complex for scientific control. Such are the experiments in distant telepathy, of communications at a long distance, or materialization. However intense may be the caution of those making the experiments, no one yet knows beforehand on what particular point of the investigation scientific control should be concentrated; a communication will sometimes come from the left when the experimenter has his attention fixt on the right; a telepathic

communication will not seem to be of much importance until later on the event to which it refers has become manifest; a phantom may rise in such darkness as renders impossible precise observation, and when it is forbidden to touch suddenly the button of the electric light, which ought to be allowable in every such scientific experiment.

Experimenters of the present day should confine themselves simply to things, and should investigate under a full light, or at any rate with the option of suddenly turning on the light. They should define their single object and it should be fully recognized before they begin. It seems to me that in this group of experiments should be classed the movement of objects and the levitation of furniture, tables or paper-weights without human contact, experiments of mental suggestion, or of the transmission of thought without contact, experiments of clairvoyants and the perception of objects through opaque bodies.

These are the three points which, in spite of all contradiction, are still occult, and whose elimination from Occultism would mark an immense advance and a great triumph in the domain of positive science.

THE END.

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